

# TA-E731X

## SERVICE MANUAL

US Model

- This set is almost the same as model TA-E721 (US) previously produced. Therefore, see the service manual for the information which is not contained in this service manual
- This set is the AV control amplifier section in SEN-V100CD.

- Items marked "\*" are not stocked since they are seldom required for routine service. Some should be anticipated when ordering these items.

### Page 31 4-1. FRONT PANEL SECTION

TA-E721 (US)				TA-E731X (US)			
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
3	X-4942-294-1	PANEL ASSY, FRONT		3	X-4944-103-1	PANEL ASSY, FRONT	

### Page 32 4-2. BACK PANEL SECTION

TA-E721 (US)				TA-E731X (US)				
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark	
*	57	4-945-755-41	PANEL, BACK	*	57	4-945-755-81	PANEL, BACK	

### Page 41 ACCESSORIES & PACKING MATERIALS

TA-E721 (US)				TA-E731X (US)			
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	1-465-712-11	COMMANDER, STANDARD (RM-P312)			1-467-345-11	COMMANDER, STANDARD (RM-P332)	
	3-754-931-21	MANUAL, INSTRUCTION (ENGLISH)			3-756-651-21	MANUAL, INSTRUCTION (ENGLISH)	
*	4-931-988-41	INDIVIDUAL CARTON		*	4-931-988-81	INDIVIDUAL CARTON	

AV CONTROL AMPLIFIER  
**SONY®**

# TA-E721

## SERVICE MANUAL

US Model  
Canadian Model  
E Model



### SPECIFICATIONS

#### Amplifier section

##### Harmonic distortion (Front)

Less than 0.02% (at 1 kHz, 1.0 V,  
Surround off)

##### Frequency response (Surround off)

PHONO: RIAA equalization curve  $\pm 1.0$  dB  
TUNER, CD, ADAPTOR, TAPE/DAT,  
VIDEO 1, 2, 3/LD, 4: 20 Hz - 70 kHz  $\pm 1.5$  dB

#### Video section

##### Video input/output

Permissible signal input level  
VIDEO 1, 2, 3/LD, 4: 1.5 Vp-p

##### Output signal level

VIDEO 1, 2, MONITOR: 1  $\pm 0.1$  Vp-p  
(with 1 Vp-p input, measured at MONITOR  
OUT)

##### Impedance (output)

75-ohm unbalanced, negative sync.

#### Audio section

##### Input

Input jack	Jack type	Sensitivity	Impedance
PHONO (MM)	Phono	2.0 mV	50 kilohms
TUNER, CD, TAPE/DAT, VIDEO 1, 2, 3/LD, 4, ADAPTOR IN	Phono	150 mV	50 kilohms

#### Output

Output jack	Jack type	Sensitivity	Impedance
TAPE/DAT, VIDEO 1, 2, ADAPTOR OUT	Phono	150 mV	470 ohms
FRONT, REAR, CENTER	Phono	1.0 V	1 kilohms

Tone controls      BASS:  $\pm 7$  dB (100 Hz)  
                         TREBLE:  $\pm 8$  dB (10 kHz)

Dolby input sensitivity  
500 mV

#### General

##### Power requirements

120V AC, 60Hz (US, Canadian)  
120V-220V-240V AC adjustable, 50/60Hz (E)

##### Power consumption

18W (US, Canadian)  
17W (E)

AC outlets      4 switched, 480 W/4A max.  
Dimensions      Approx. 430 x 105 x 295 mm (w/h/d)  
(17 x 4 1/4 x 11 5/8 inches)

(including projecting parts and controls.)

Weight      Approx. 3.5 kg (7 lb 12 oz)  
Accessories supplied

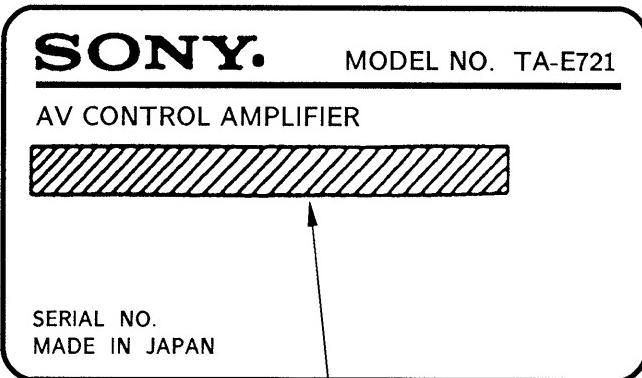
Power amp control cord (1)  
Audio connecting cord (2)  
Remote commander RM-P312 (1)  
Sony Batteries SUM-3 (NS) (2)

Design and specifications are subject to change without notice.

AV CONTROL AMPLIFIER  
**SONY**®

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**MODEL IDENTIFICATION***- Specification Label -*

US, Canadian Model : AC : 120V 60Hz 18W  
E Model : AC : 120/220/240V ~ 50/60Hz 17W

**SAFETY CHECK-OUT**

After correcting the original service problem, perform the following safety check before releasing the set to the customer :

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

**LEAKAGE TEST**

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers.).

Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

**SAFETY-RELATED COMPONENT WARNING!!**

**COMPONENTS IDENTIFIED BY MARK  $\Delta$  OR DOTTED LINE WITH MARK  $\Delta$  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.**

**ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!**

**LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  $\Delta$  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.**

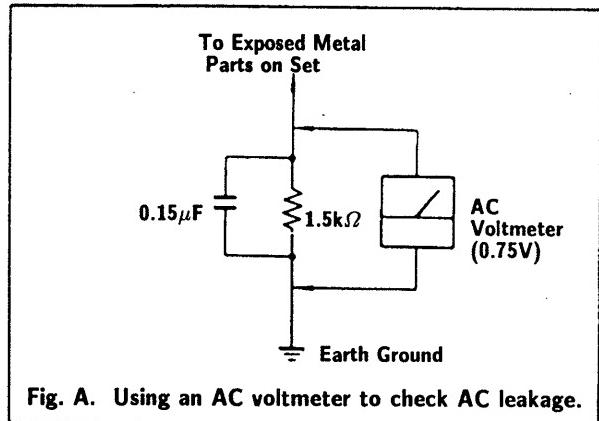


Fig. A. Using an AC voltmeter to check AC leakage.

## SECTION 1

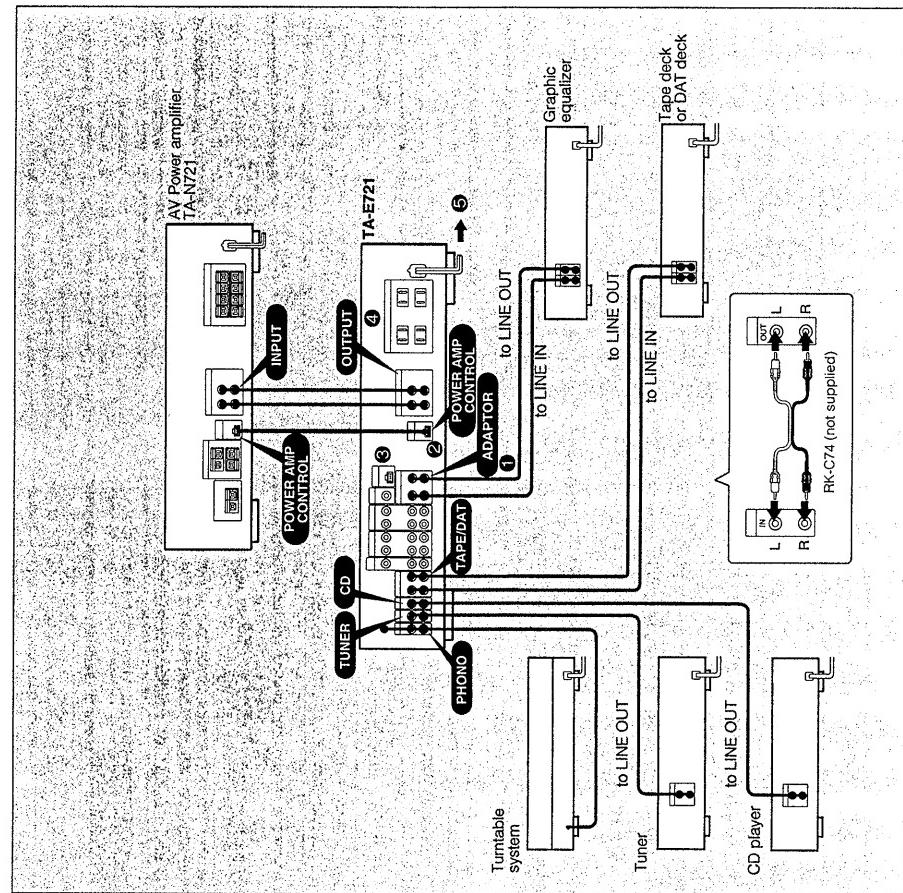
### GENERAL

### Connections

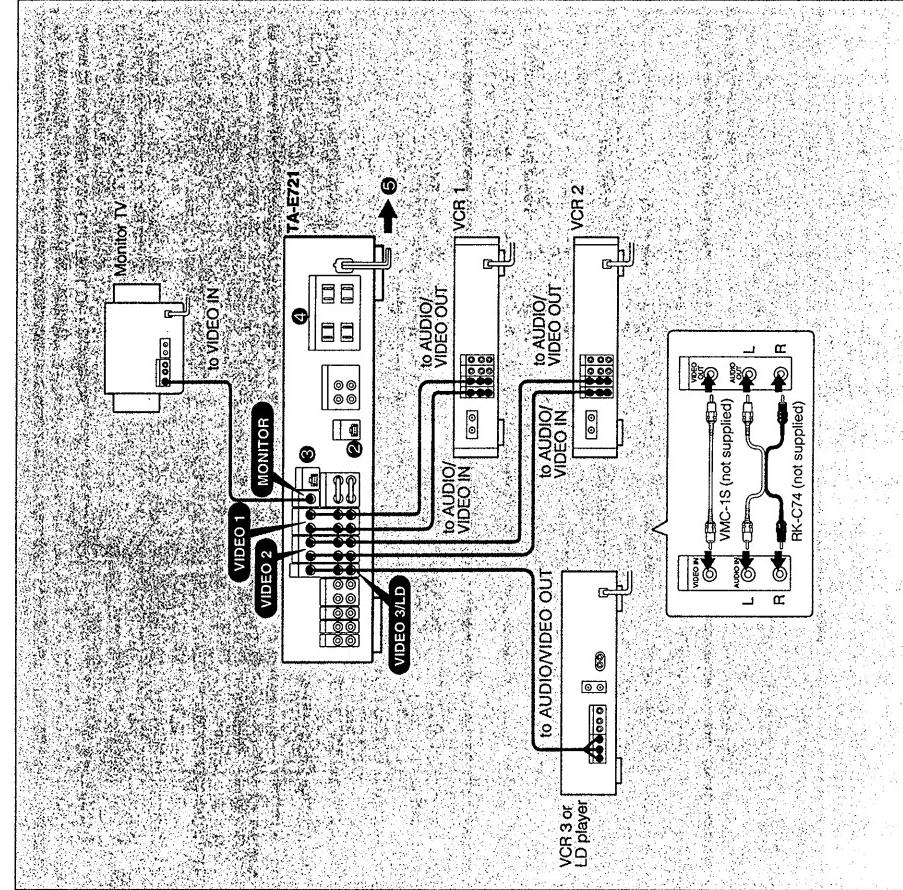
This section is extracted from  
instruction manual.

- Connect the AC power cord last. Make sure power is off.
- Cord plugs and jacks are color coded. Red plugs and jacks are for right channel (R) of the FRONT OUTPUT terminals and white ones for left channel (L) of that terminals. And also, red plugs and jacks are for REAR terminal and white ones for CENTER terminals. And also,
- The cable connectors should be fully inserted into the jacks. A loose connection may cause hum and noise.
- The numbers correspond to the following details on page 6.

Connecting Audio Equipment



Connecting Video Equipment





## Remote Commander

- ⑥ Reset button**  
Reset the commander to the initial state.
- ⑦ Tuner control section**  
SHIFT button: Selects a memory page.  
PRESET +/- buttons: Select a preset station.

- ⑧ Power control section**  
SYSTEM OFF button: Turns off the power of the whole system: LD/P, VCR, TV, and AUDIO.  
LDP/VTR1/VTR2/VTR3/TV/AUDIO POWER buttons:  
Control the power of each unit.

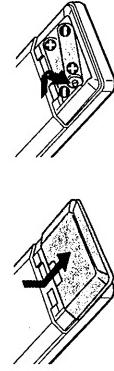
### Note on the ● (recording) button under ③ Tape deck/ DAT/VCR control section

If your recorder is of such type as pressing ● puts it in recording pause mode, first press ● on this commander and then II.

### Note

- The ▶▶ (play) buttons in ③ and ④ and the SHIFT button and PRESET +/- buttons in ⑦ can function without pressing one of the FUNCTION buttons in ⑤ in the following cases:
- When the CD player is connected to the CD jacks
  - When the tape deck is connected to the TAPE jacks
  - When the video deck is connected to the VIDEO 1 jacks (switch the MODE on the remote commander to VTR 1).

### Inserting the Batteries



- 1** Open the cover.

- 2** Insert two size-AA (R6) batteries with correct polarity.

**Battery life**  
About half a year of normal operation can be expected when using the Sony SLIM-3 (NS) batteries. When the batteries are exhausted, the commander can no longer operate the unit. Replace both batteries with new ones.

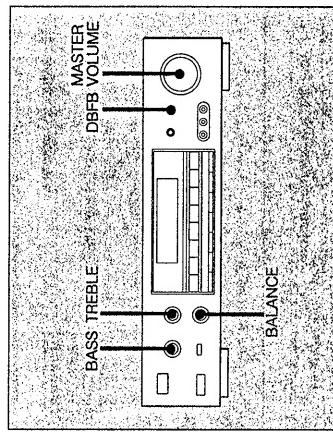
### To avoid battery leakage

When the commander is not to be used for a long period of time, remove the batteries to avoid damage caused by battery leakage and corrosion.

**To avoid malfunction of the remote commander**  
Avoid keeping the commander under extremely hot or humid location.

## Adjusting the Sound

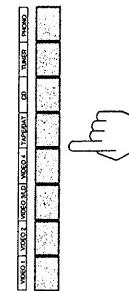
### Basic Operation



- 1** Press the SYSTEM POWER switch to turn on the unit.



- 2** Select a program source.



- 3** Play the program source.

### Adjusting Left and Right Sound Balance

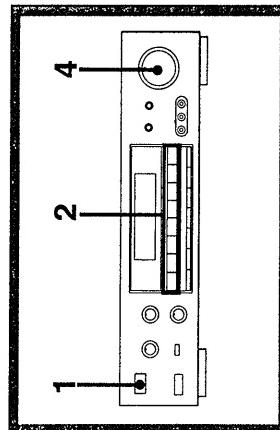
Adjust BALANCE control to correct stereo imaging when the speaker position is not symmetrical.

To increase the volume, turn the MASTER VOLUME control clockwise.  
To decrease it, turn the control counterclockwise.  
**Note**  
Turn down the volume before switching on the unit. This prevents damage to speakers.

### Reinforcing the Bass

To obtain powerful bass sound, press DBFB (Dynamic Bass Feed Back) button. The indicator on the display lights up.

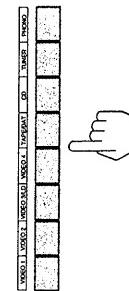
## Listening to/Watching Program Sources



- 1** Press the SYSTEM POWER switch to turn on the unit.



- 2** Select a program source.



- 3** Play the program source.

### Adjusting the Tone from the Front Speakers

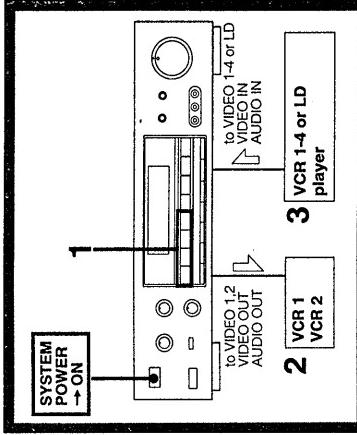
To enhance treble or bass sound from the front speakers, turn the TREBLE or BASS control clockwise.  
To attenuate them, turn the TREBLE or BASS control counterclockwise.



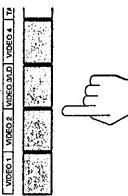
### MASTER VOLUME

## Recording Video Program Source

You can operate two or more video or tape decks for recording at the same time as the audio (and video) signals of the program source are output simultaneously through all recording output jacks.



- 1** Select a video source for VCR 1-4 or LD player.



- 2** Set the VCR 1 or VCR 2 in the recording mode.



- 3** Play the selected program source.

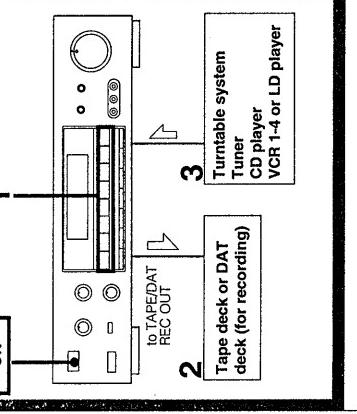
To record onto two tapes at a time – simultaneous recording  
Set both the VCR 1 and VCR 2 to the recording mode.

To record audio signal of video source onto a cassette tape  
The audio signal of the program source selected by the FUNCTION selectors is always output from the TAPE/DAT jacks. Set the tape (or DAT) deck connected to the TAPE/DAT jacks to the recording g mode.

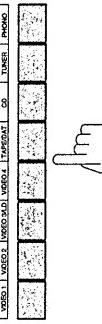
**Note**  
Recording can be performed with a VCR except the VCR or LD player for playback.

## Recording Audio Program Source

You can operate two or more video or tape decks for recording at the same time as the audio (and video) signals of the program source are output simultaneously through all recording output jacks.



- 1** Select a program source.



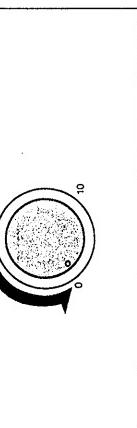
- 2** Set the tape deck or DAT deck to the recording mode.

- 3** Play the selected program source.

## Listening to/Watching Program Sources

### Combining the Video Image with the Sound from Another Program Source

The unit allows you to combine a video image with sound from another audio program source as background music.

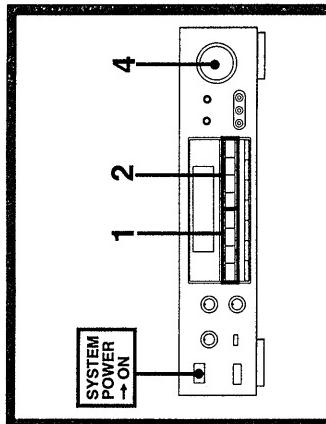


#### To cancel the combining function

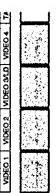
Select the desired video source again.

#### To watch a video source with the MONITOR number displayed on the monitor TV

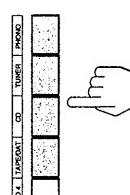
Select the video source with FUNCTION selectors.



- 1** Select a video source.



- 2** Select an audio source.



- 3** Play both the video and audio program sources.

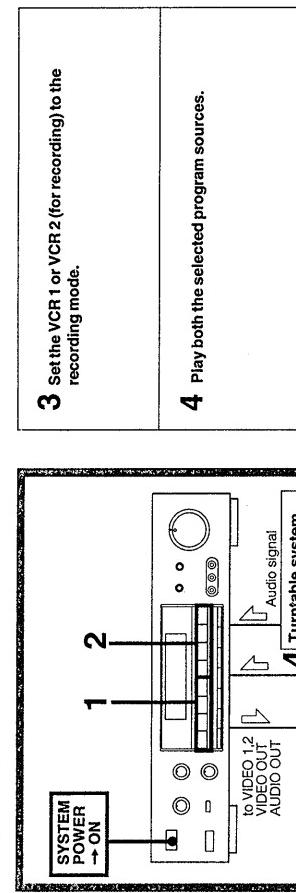
## Editing Audio/Video Program Sources

During video tape editing, you can add the desired sound on the recording-side video tape from audio or video program source.

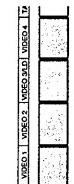
## Getting Ready to Enjoy Surround Sound

### Basic Surround System

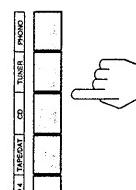
- Set the VCR 1 or VCR 2 (for recording) to the recording mode.
- Play both the selected program sources.



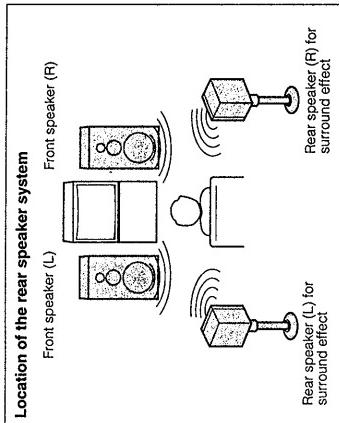
- Select a video source for VCR 1, VCR 2, VCR 3 (or LD player), or VCR 4 except the VCR for recording.



- Select an audio source.



Two front and two rear speakers are necessary to enjoy the surround function.



### Selecting surround modes

- DOLBY® (Dolby Surround)  
Expands sound just like listening to it in a movie theater.

### DOLBY PRO LOGIC

- The Dolby Pro Logic Surround Decoder which has the same functions for playback, such as movie theaters and gives a theater-like experience in your listening room, naturally reproducing the audio sound field.

- HALL (Hall Surround)  
Provides reverberation effect that is produced in a concert hall.

### SIMULATED (Simulated Surround)

- Gives a simulated stereo effect to monaural sound.

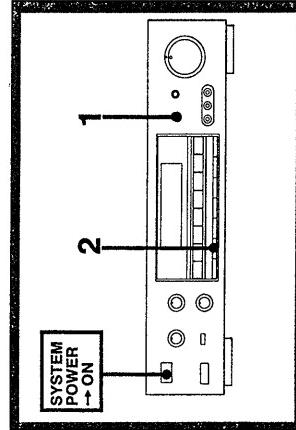
- To turn on or off the surround mode  
Press the SURROUND button.

### Note

- No sound will be heard from the surround speakers, when the SURROUND button is set to off.

### Selecting the Speaker Operation Mode in the Dolby Pro Logic Function

One center speaker is required in addition to the basic four speakers for the Dolby Pro Logic surround system. In the DOLBY surround mode, a speaker operation mode can be selected to match your speaker system. Press PRO LOGIC MODE button to select the appropriate mode.

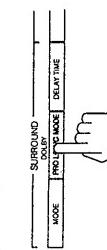


- Press the SURROUND button so that the SURROUND ON/OFF indicators in the display window shift over to ON.

### SURROUND



- Select the DOLBY PRO LOGIC mode according to your speaker system.



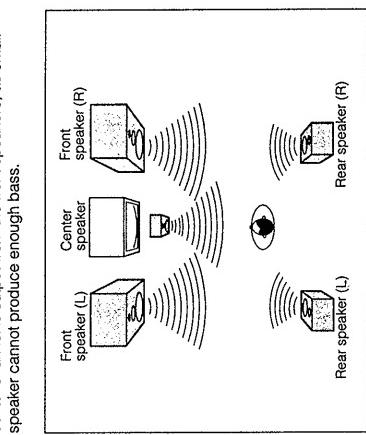
Each time the PRO LOGIC MODE button is pressed, the DOLBY PRO LOGIC mode is changed in the following order:  
NORMAL → WIDE → 3 CH. → PHANTOM

\* Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under one or more of the following patents: U.S. numbers 3,621,886, 3,746,792 and 3,959,390; Canadian numbers 1,043,603 and 1,057,877. "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

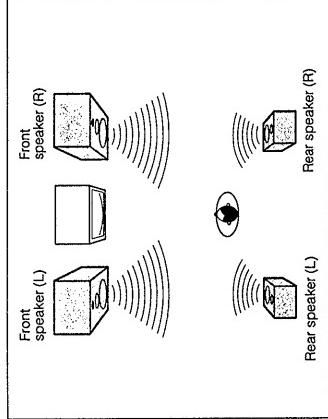
decoder reproduces the specially encoded surround sound of Dolby surround video programs.

## Getting Ready to Enjoy Surround Sound

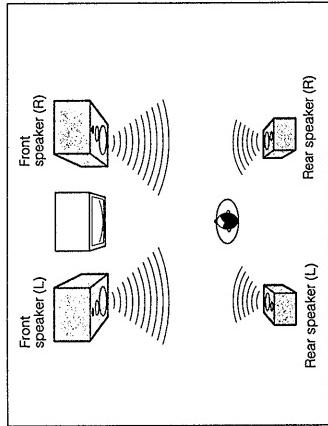
**NORMAL mode**  
When connecting smaller speakers than front speakers, such as that of TV for a center speaker. The bass sound of the center channel is output from the front speakers, as small speaker cannot produce enough bass.



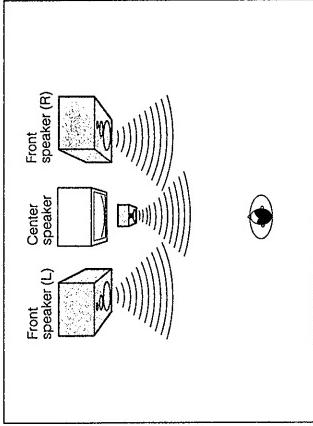
**PHANTOM mode**  
When connecting only front and rear speakers. The sound of the center channel can be heard from the front speakers.



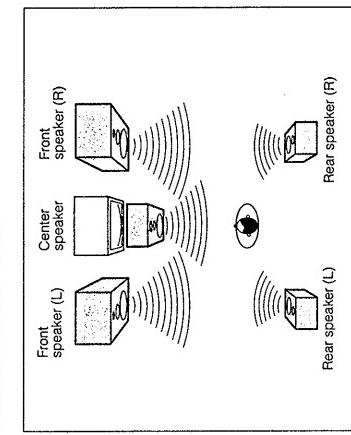
### Adjusting the Surround Level for Dolby Surround System



**3 CH. mode**  
When connecting front speakers and a center speaker. The sound of the rear channels can be heard from the front speakers.



**WIDE mode**  
When connecting the same size of speaker as front speakers for a center speaker.



**Note**  
The amount of the DBFB effect varies according to the Dolby Pro Logic mode.

**5** Adjust the sound level of front, rear speakers and a center speaker.

For front speakers      For rear speakers      For center speaker

**6** Press the T.TONE button on the remote commander again to set to off.

**Automatic Input Balance**  
The input balance is automatically adjusted. When the adjustment is completed, the AUTO INPUT BALANCE indicator lights up.

**Note**  
The display window has level indicators for rear speakers and center speaker. When distorted sound is seen to be output from the rear speakers or center speaker, adjust their levels independently so that the peaks of the signal levels may not reach the orange section.

**1** Press the SURROUND button so that the SURROUND ON/OFF indicators in the display window shift over to ON.

**2** Select the DOLBY surround mode.

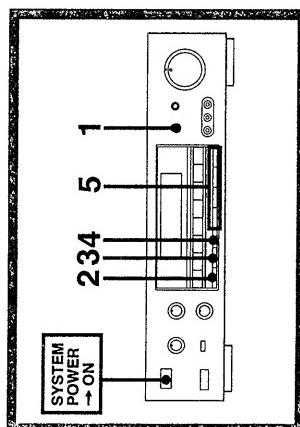
**3** Select the DOLBY PRO LOGIC mode according to your speaker system.

**4** Press the T.TONE button on the remote commander.  
(The T.TONE function is available only with the remote commander.)

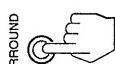
## Enjoying Surround Sound

### Listening to with Surround Effect

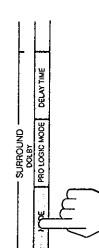
The unit has three surround modes, DOLBY, HALL, and SIMULATED which have been preset in the factory. You can enjoy the surround sound effects by just selecting the surround mode according to the program source.



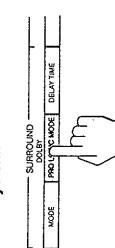
- 1** Press the SURROUND button so that the SURROUND ON/OFF indicators in the display window shift over to ON.



- 2** Select a surround mode: DOLBY, HALL, or SIMULATED.

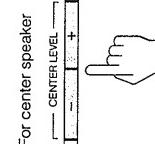
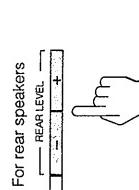
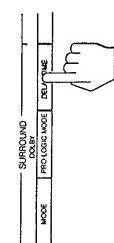


- 3** Select the DOLBY PRO LOGIC mode according to your speaker system.

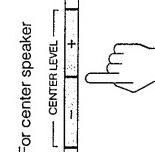
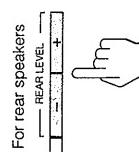


- To turn off the surround effect**  
Press SURROUND button again.  
The normal sound without surround effect will resume.

- 4** Select the delay time: 15 ms, 20 ms, or 30 ms.

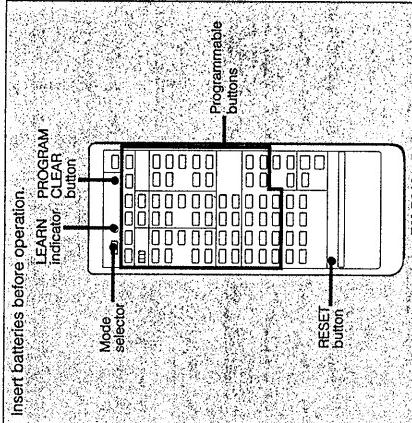


- 5** Adjust the level of the rear speakers and center speaker.



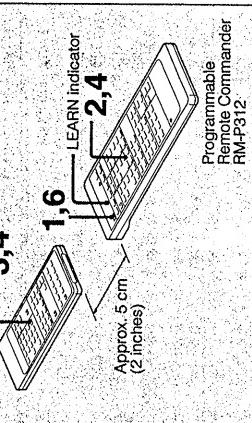
### Programming Signals of Other Audio/Video Equipment with RM-P312

The RM-P312 can learn various functions of other remote commanders emitting infrared rays and allows you to control most of audio and video equipment from a distance.

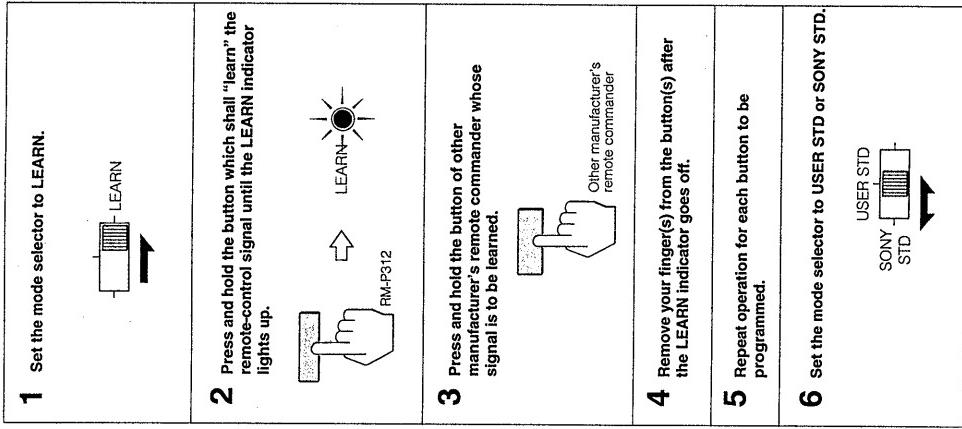


- The two remote commanders must:**
- be placed straight and head to head.
  - be placed at a distance of approx. 5 cm (2 inches).
  - not be moved during the programming operation.

Other manufacturer's  
remote commander  
**3, 4**



## Advanced Operating with the Remote Commander



**After programming**  
Be sure to test if the equipment really works with the programmed signals.

**Number of signals that the commander can learn**  
It depends on the format of the signal. If you program signals of Sony equipment, approximately 50 - 60 signals can be programmed.

## Advanced Operating with the Remote Commander

If the LEARN indicator flashes or does not go out in steps 2-4.

The memory capacity has become full. This occurs when other signals stronger than the remote-control signals have been stored because the signals were programmed in a noisy environment or the remote commanders were placed too far apart from each other.

→ Clear all the signals following the procedure on the right and program again from the beginning under the proper conditions.

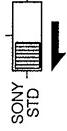
### Notes on programming

- Remote-control signals of equipment of manufacturers other than Sony can be programmed only when they are compatible with the infrared wireless remote control system. Since the programmable commander can "learn" only the signals output from another remote commander, it cannot control equipment that does not use a remote commander. Also, note that there are some special remote-control signals that cannot be programmed.
- Do not attempt to use the programmable commander with an air conditioner or other household appliances.

### Controlling Equipment

By switching the mode selector as shown below, a single button alternately controls Sony equipment and another manufacturer equipment.

### To control Sony equipment



### To control equipment with programmed signals



### To Program a New Signal onto a Previously Programmed Button

Follow the programming procedure.

The previously programmed signal is cleared and replaced by the new signal.

### To clear all programmed signals

- 1 Set the mode selector to LEARN.
- 2 Press and hold any button of the programmable area until the LEARN indicator lights up.
- 3 Press PROGRAM CLEAR until the LEARN indicator flashes and goes off.

**Note**  
It is not possible to clear the programmed content of just one button.

### To program a signal onto the ● REC button in the TAPE or VTR section

It is not possible to operate any equipment with only the ● REC button. To program a signal under the ● REC button, press and hold the following buttons at the same time in step 2.

TAPE	DECK/VR REC MODE ◀	DECK/VR REC MODE ●
VTR	DECK/VR REC MODE ▲	●

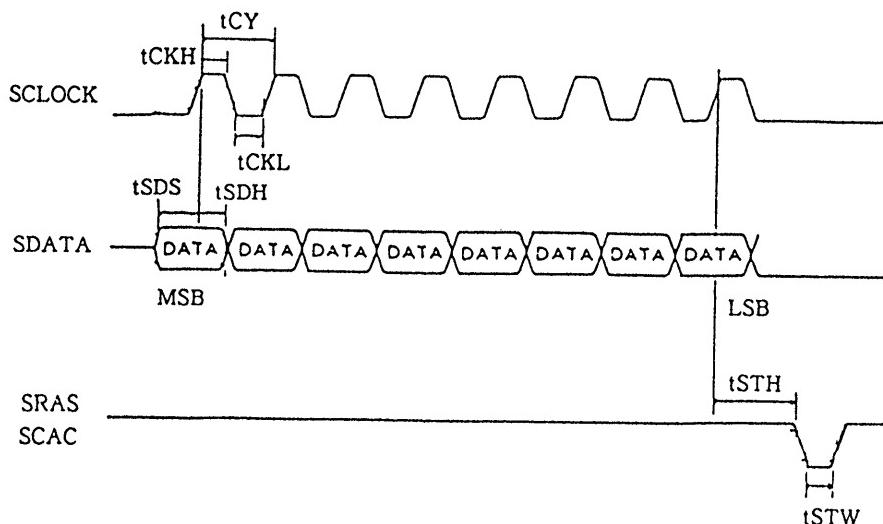
## SECTION 2

### IC PIN FUNCTION

#### 2-1. DESCRIPTION ON IC303 (LV1001M)

Pin No.	Explanations
1	De-couple capacitor for threshold voltage
2, 64	Capacitor for smoothing of rectifier output
3	Capacitor for sliding band filter and Delayed output
4, 62	Capacitor for sliding band filter
5, 61	Capacitor for pre-emphasis
6, 60	Input filter for rectifier
7, 57	Input filter for rectifier
8	Reference voltage
9	Reference voltage
10	Mute control
11	Vcc
12	Output for V <sub>DD</sub>
13	Clock input for serial input, data input for parallel input mode
14	Data input for serial input, data input for parallel input mode
15	Column address selection for serial input, data input for parallel input mode
16	Row address selection for serial input, data input for parallel input mode
18 to 32	Connection to memory device
24	Vss
33	X'tal resonator for oscillator
34	X'tal resonator for oscillator
35	Long or Short mode selection
36	Serial or Parallel mode selection
37	For test mode
38	Smoothing for NR rectifier
39	Smoothing for NR rectifier
40	Capacitor for weighting on side chain path
41	Input for variable resistor
42	NR output
43	7kHz low pass filter output
44	Input for NR
45	Capacitor for de-couple on NR
46	Delay output or NR output
47	Input for mute circuit
48	Output for mute circuit
49	Output for 7kHz low pass filter
50	Input for 7kHz low pass filter
51	GND
52	Input for right channel
53	Input for left channel
54	Capacitor for de-couple on Fixed matrix output
55	Noise shaping and delay input
56	Noise shaping output
57	Delay input signal mode select switch (L + R / L - R)
58	Filter for supply voltage on comparator
63	Capacitor for sliding band filter and local decoder output

Input Address Port Timing  
SHORT MODE



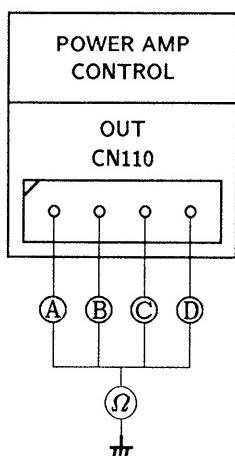
In case of short mode, delay time setting is set in above timing. The date loaded to SDATA is written on the leading edge timing. In order to select that the data latch for row address strobe or column address strobe is loaded, SRAS or SCAS port is controlled.

When changing delay time setting, meaningless data on a memory are read. this causes the pop noise. when SRAS or SCAS is controlled, mute circuit (pin 55 is input, pin 56 is output) is activated. Mute time is the same as the delay time which is set at that time. (Serial data input mode only, On parallel data input mode, mute circuit is activated by using the mute control port pin 18.)

On long mode, input data number is 9, the way of setting delay time is same.

## 2-1-1. SERVICE NOTE

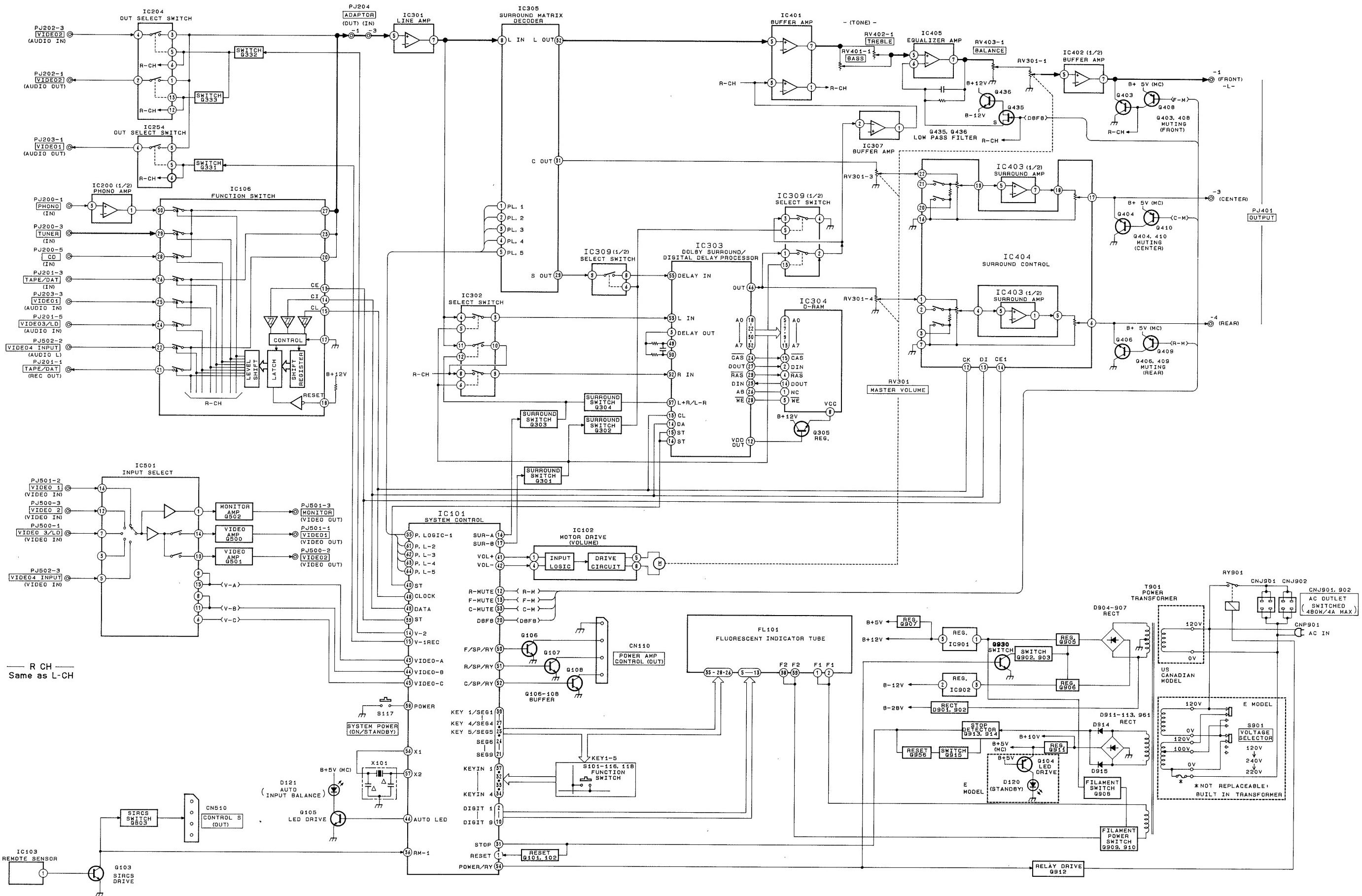
CN110 (POWER AMP CONTROL OUT)  
(POWER AMP Unconnected Operation Check)



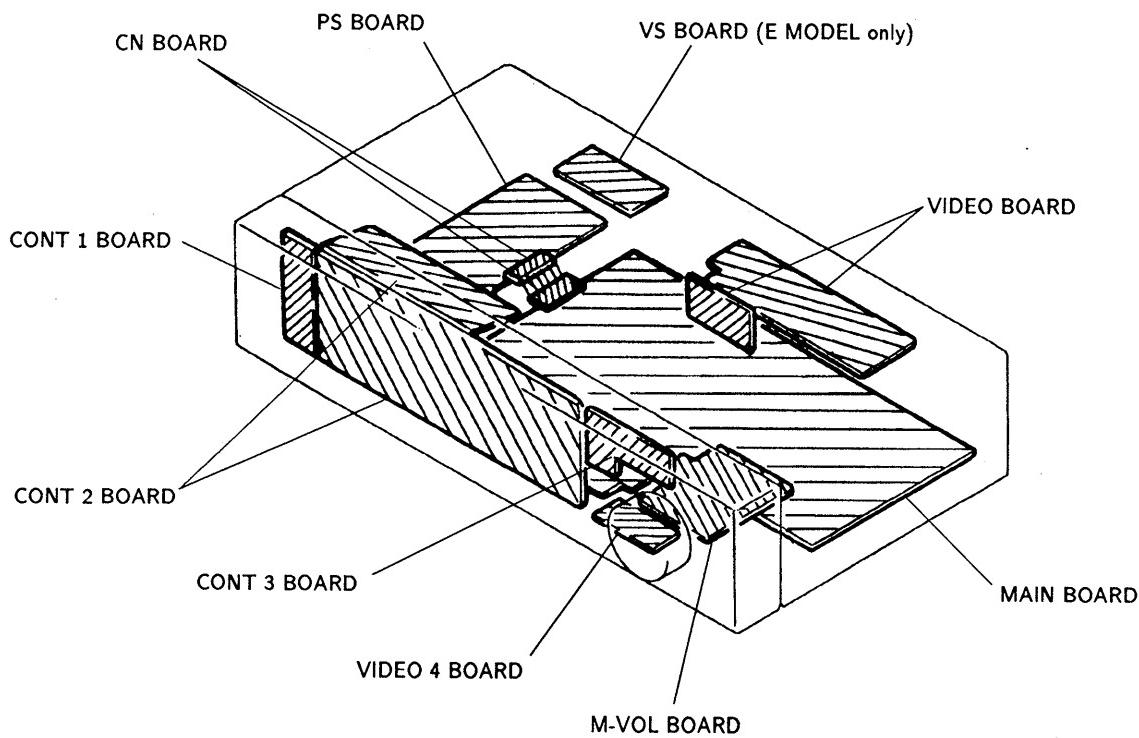
CN101	POWER OFF	POWER ON (SURROUND OFF)	DOLBY PRO LOGIC				HALL	SIMULATED
			PHANTOM	NORMAL	WIDE	3CH		
Ⓐ	0Ω	0Ω	0Ω	0Ω	0Ω	0Ω	0Ω	0Ω
Ⓑ	113Ω	114Ω	114Ω	∞Ω	∞Ω	∞Ω	114Ω	114Ω
Ⓒ	113Ω	114Ω	∞Ω	∞Ω	∞Ω	114Ω	∞Ω	∞Ω
Ⓓ	113Ω	∞Ω	∞Ω	∞Ω	∞Ω	∞Ω	∞Ω	∞Ω

## **SECTION 3 DIAGRAMS**

### **3-1. BLOCK DIAGRAMS**



### 3-2. CIRCUIT BOARDS LOCATION

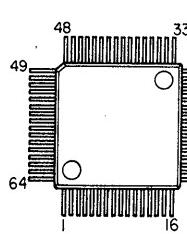


### 3-3. SEMICONDUCTOR LEAD LAYOUTS

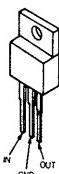
GP1U52XB

1 Vout  
2 Vcc  
3 GND

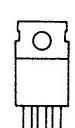
LV1001M



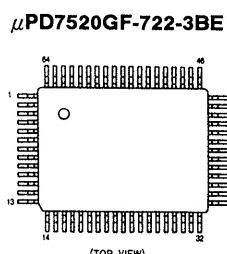
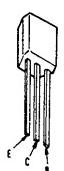
M5F78M12



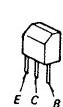
M5F79M12



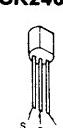
COMMON (GND) IN OUT

DTC124ES  
2SC2603-EF  
2SC3622A-LK2SA733-QP  
2SD1387

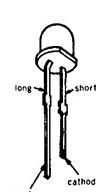
2SD773



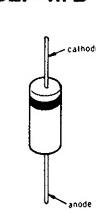
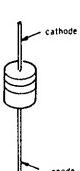
2SK246-Y

H4ALL  
IN4148M

SEL2810A

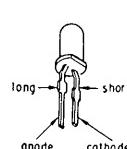
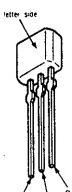


UZP-4.7B

UZS6C3L  
11ES2

UZP-22BC-TP

SEL2210S-CD

DTA124ES  
2SA1175-HFE  
2SC3623A-LK

## 3-4. PRINTED WIRING BOARD — MAIN SECTION —

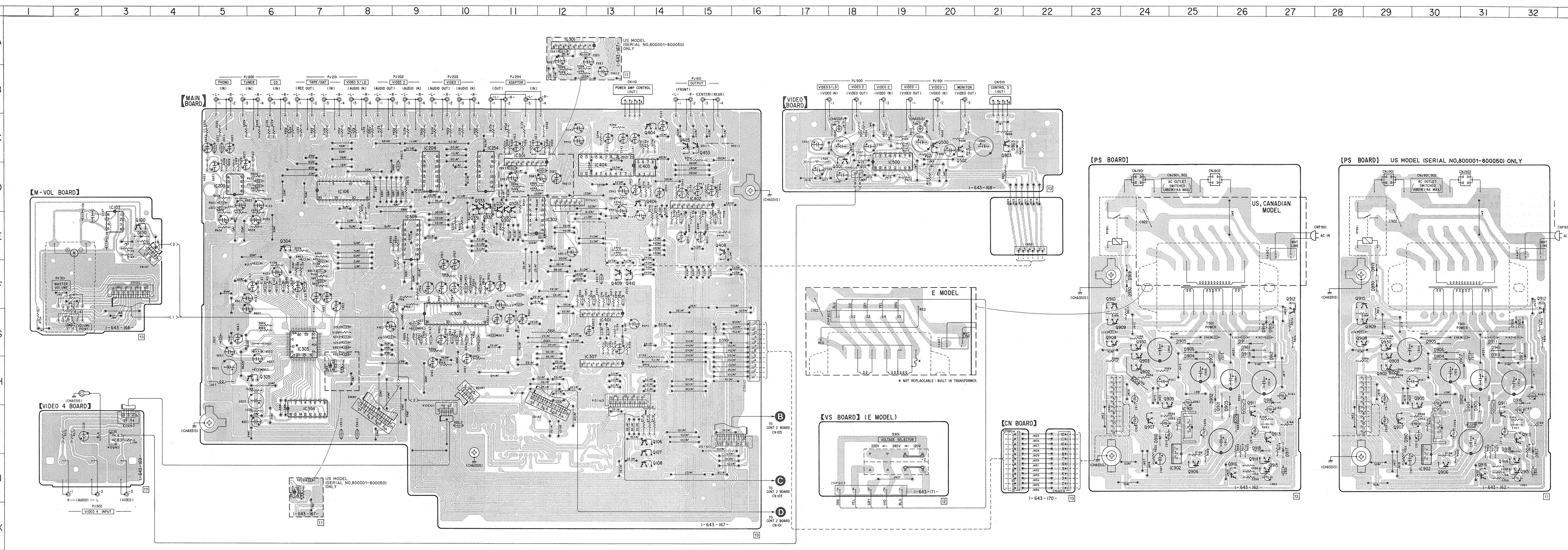
- Refer to page 21 for IC BLOCK DIAGRAM
- Refer to page 16 for Semiconductor Lead Layouts

• SEMICONDUCTOR LOCATION  
(MAIN/POWER BOARD)

Ref. No.	Board suffix number		Board suffix number	
	-11	-12	-11	-12
LOCATION	LOCATION	Ref. No.	LOCATION	LOCATION
D130	E-3	Q100	E-100	
D399	G-15	Q106	I-14	
D803	C-21	Q107	H-14	
D901	I-31	Q108	J-14	
D902	H-31	Q301	D-11	
D903	I-31	Q302	E-11	
D904	H-30	Q303	D-11	
D905	G-30	Q304	E-6	
D906	G-30	Q305	H-6	
D907	H-25	Q331	D-10	
D910	I-29	Q332	D-10	
D911	G-31	Q333	D-10	
D912	H-32	Q403	C-15	
D913	H-31	Q404	C-14	
D914	G-32	Q406	D-14	
D915	G-32	Q408	E-15	
D916	H-32	Q409	F-13	
D917	I-32	Q410	F-13	
D918	I-32	Q500	C-20	
D919	F-29	Q501	D-18	
D930	F-29	Q502	C-20	
D961	G-31	Q803	C-21	
IC102	E-3	Q902	H-29	H-24
IC105	D-8	Q903	H-29	H-24
IC200	D-5	Q905	H-30	H-25
IC204	D-9	Q906	J-30	J-25
IC254	A-12	Q907	I-29	I-24
IC301	E-12	Q908	G-29	G-23
IC302	E-12	Q909	G-29	G-23
IC303	G-7	Q910	F-28	F-23
IC304	I-7	Q911	I-31	I-26
IC305	G-10	Q912	I-32	I-26
IC307	H-13	Q913	I-32	I-27
IC309	E-9	Q914	J-32	J-26
IC401	G-13	Q915	J-32	J-27
IC402	D-15	Q916	J-31	J-26
IC403	D-14	Q917	G-29	G-24
IC404	D-13	Q930		
IC500	D-19			
IC901	I-30			
IC902	J-30			

## — MAIN SECTION —

- Note:
- ○ : parts extracted from the component side.
  - ■ : parts mounted on the conductor side.
  - ○ : Jumper wire connected to the ground pattern on the component side.
  - ■■■ : Pattern on the side which is seen.

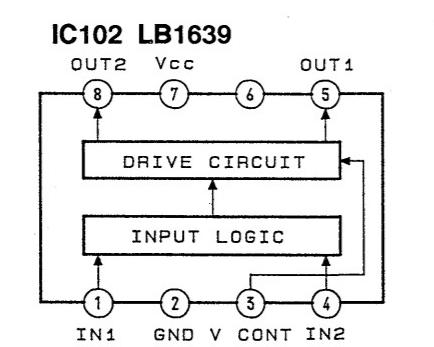
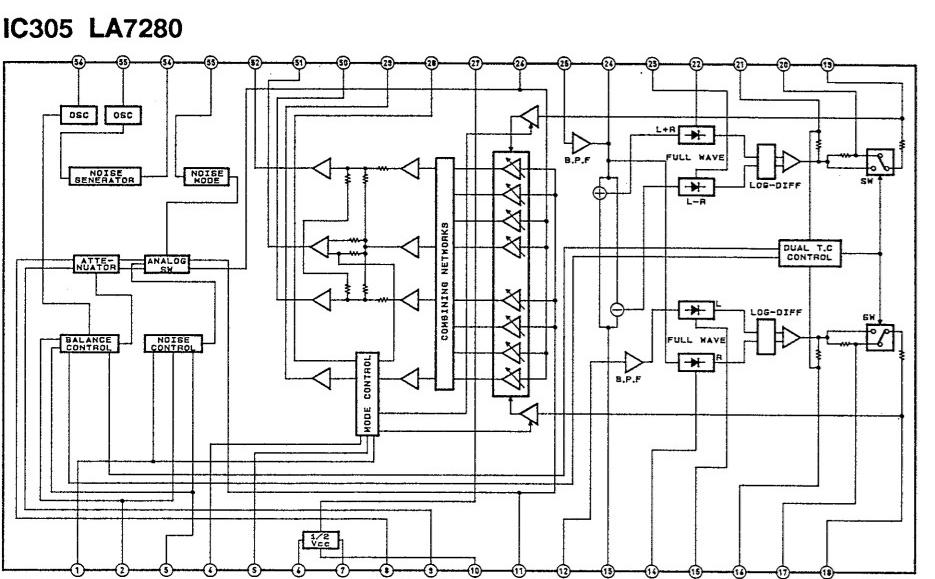
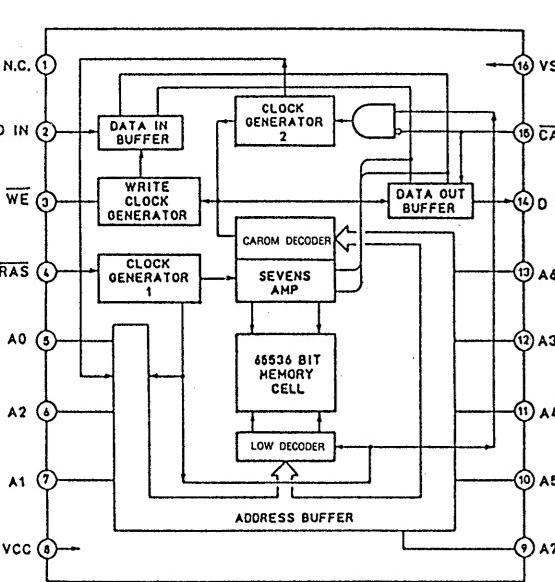
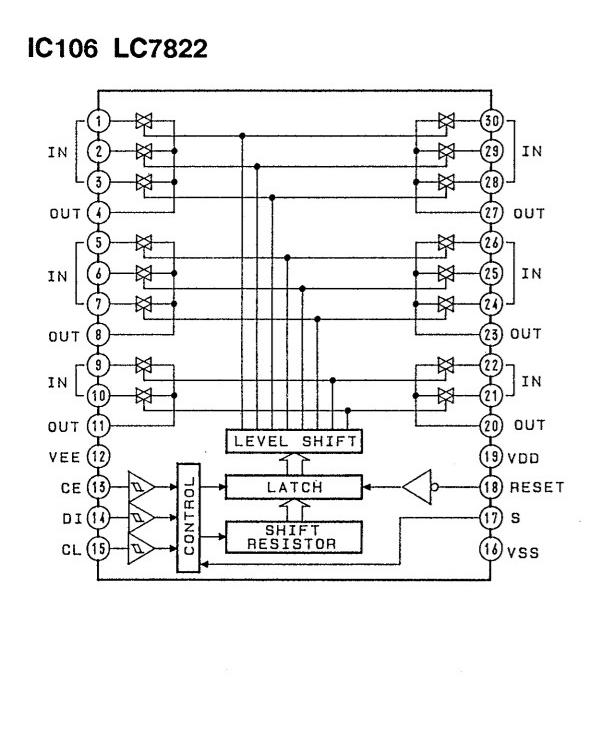
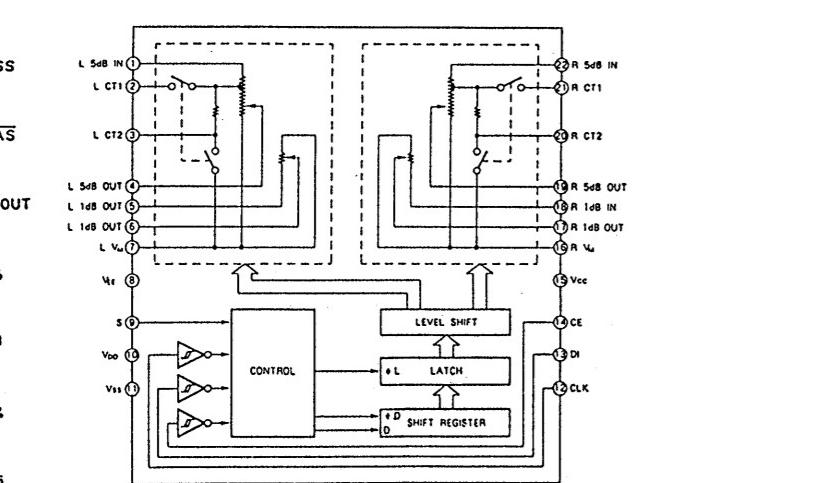


**— MAIN SECTION —**

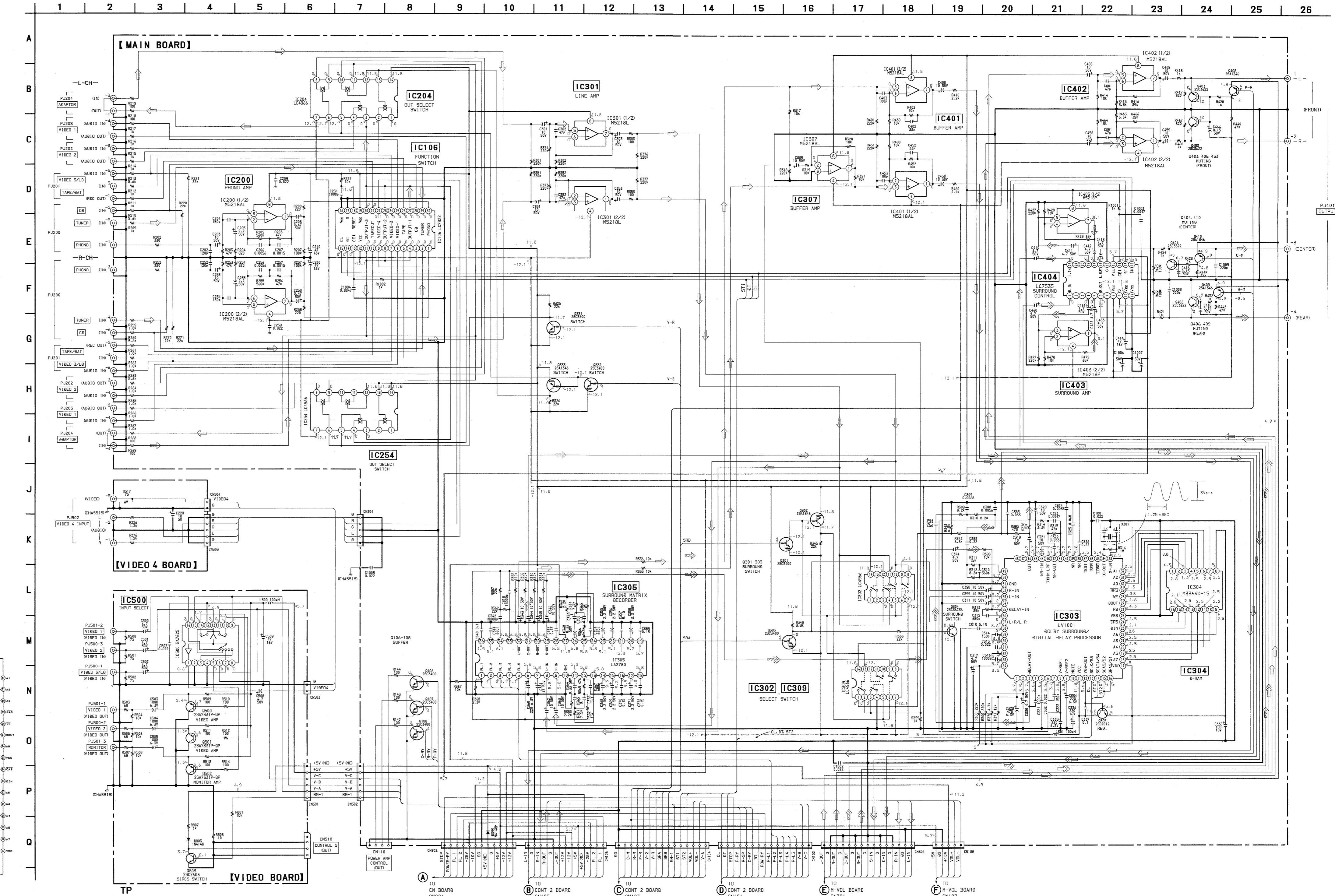
- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\text{F}$  50V or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and 1/4W or less unless otherwise specified.
- $\triangle$ : internal component.
- $\text{---}$ : fusible resistor.

Note:  
The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

Note:  
Les composants identifiés par une marque  $\triangle$  ou une ligne pointillée avec une marque  $\triangle$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

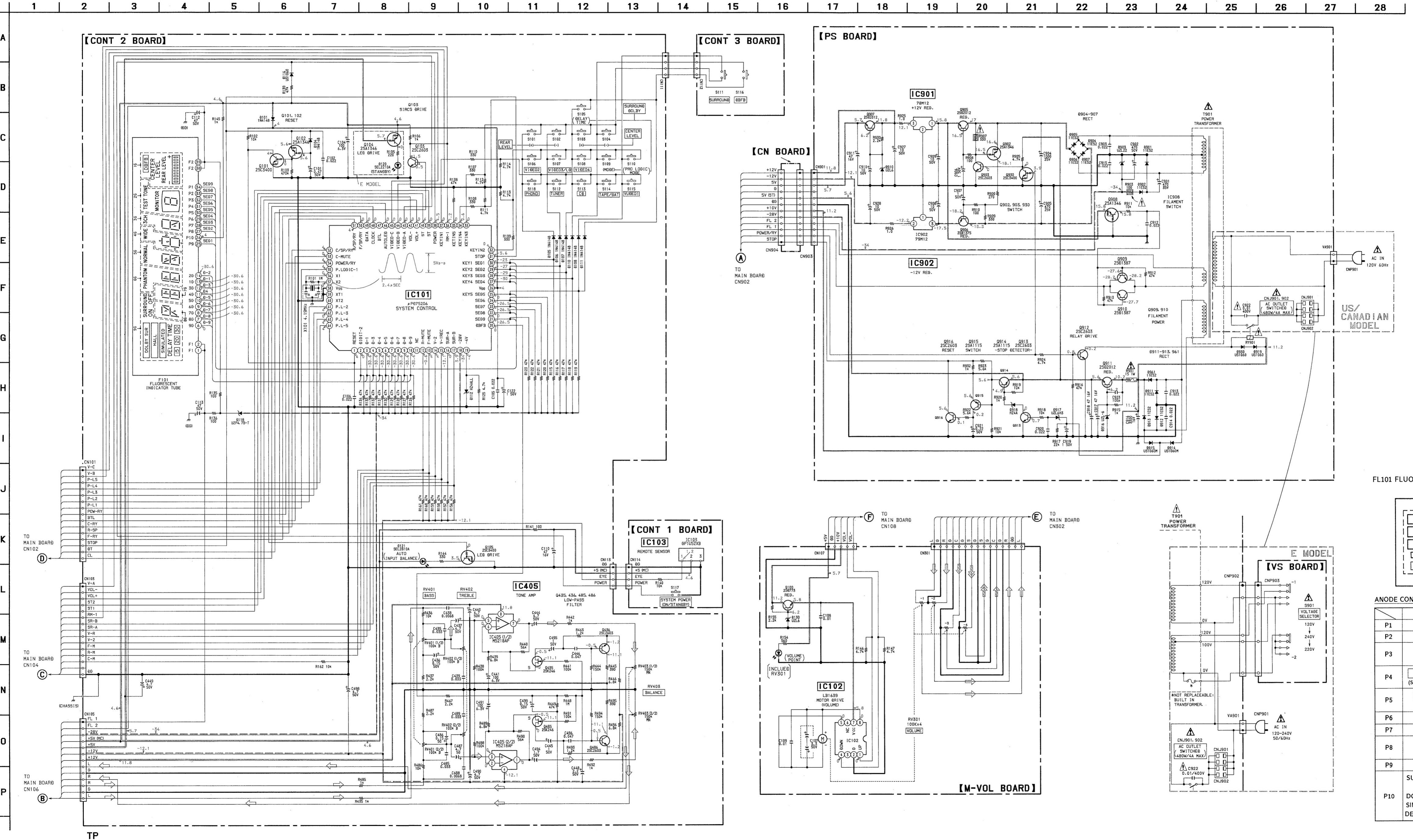
**3-5. IC BLOCK DIAGRAMS****IC304 LM3364K-15****IC404 LC7535****3-6. SCHEMATIC DIAGRAM — MAIN SECTION —**

- Refer to page 21 for IC BLOCK DIAGRAM
- Refer to page 16 for Semiconductor Lead Layouts



## 3-7. SCHEMATIC DIAGRAM — CONTROL SECTION —

- Refer to page 21 for IC BLOCK DIAGRAM
- Refer to page 16 for Semiconductor Lead Layouts



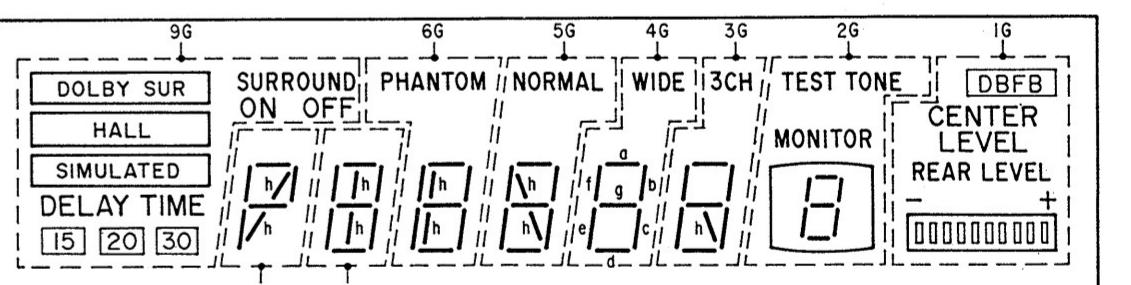
## — CONTROL SECTION —

- Note:  
 • All capacitors are in  $\mu$ F unless otherwise noted. pF:  $\mu\mu$ F 50W or less are not indicated except for electrolytics and tantalums.  
 • All resistors are in  $\Omega$  and 1/4W or less unless otherwise specified.  
 •  $\Delta$ : internal component.  
 •  $\text{---}$ : fusible resistor.

Note:  
 The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

- o mark : B+ line  
 o mark : B- line  
 o Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.  
 no mark : SURROUND off Position  
 $\Rightarrow$  : FWD  $\triangleleft$  : REV  $\square$  : STOP  
 $\Rightarrow\Rightarrow$  : FF  $\triangleleft\triangleleft$  : REV  $\circ$  : REC  
 • Voltages are taken with a VOM impedance 10M $\Omega$ . Voltage variations may be noted due to normal production tolerances.  
 • Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.  
 • Signal path.  
 $\Rightarrow$  : TUNER  
 $\Rightarrow\Rightarrow$  : REAR  
 $\Rightarrow\Rightarrow\Rightarrow$  : CENTER  
 $\Rightarrow\Rightarrow\Rightarrow\Rightarrow$  : SURROUND (DELAY)

FL101 FLUORESCENT INDICATOR TUBE



ANODE CONNECTION

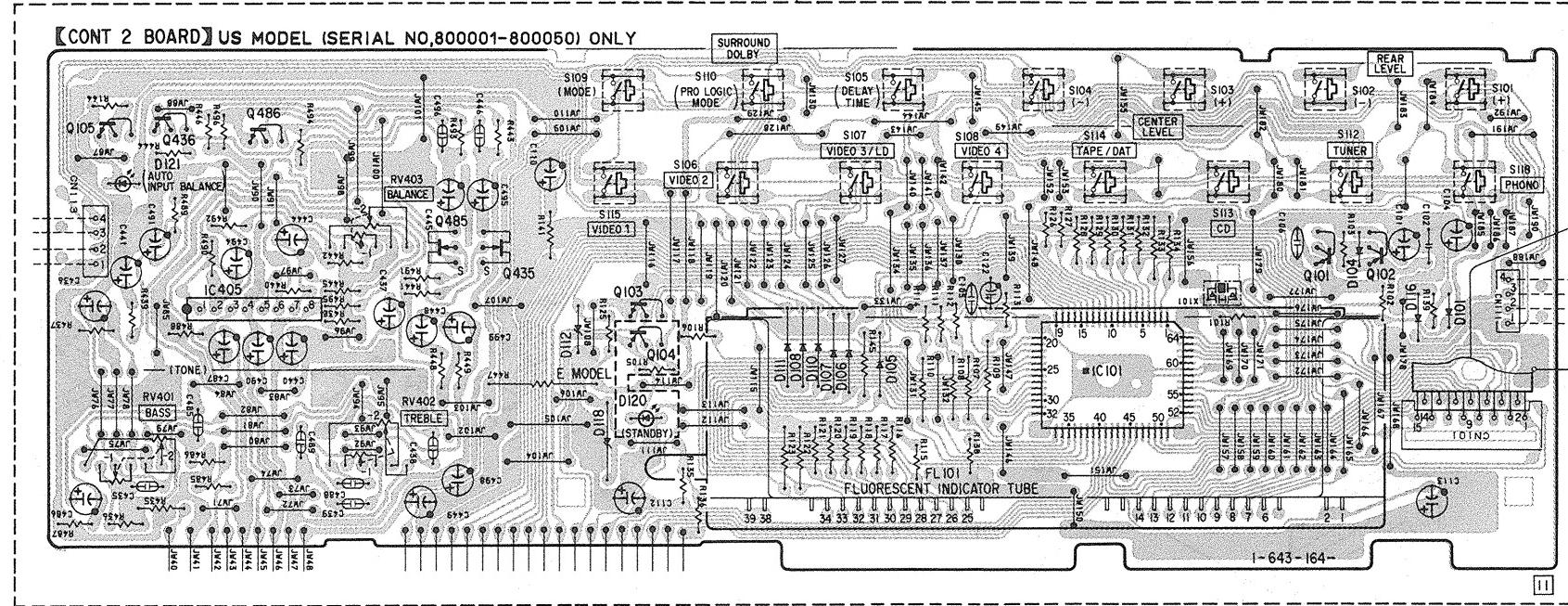
	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	ON	a	a	a	a	a	a	a	—
P2	OFF	b	b	b	b	b	b	b	DBFB
P3	(HALL)	—	c	c	c	c	c	c	B1
P4	(SIMULATED)	—	d	d	d	d	d	d	B2
P5	(DOLBY)	e	e	e	e	e	e	e	B3
P6	15	f	f	f	f	f	f	f	B4
P7	20	g	g	g	g	g	g	g	B5
P8	30	h	h	h	h	h	h	h	MONITOR
P9	—	—	—	—	—	—	—	—	CENTER LEVEL
P10	SURROUND HALL DOLBY SUR SIMULATED DELAY TIME	—	—	—	—	—	—	—	+
									S1

### 3-8. PRINTED WIRING BOARD — CONTROL SECTION —

- Refer to page 21 for IC BLOCK DIAGRAM
- Refer to page 16 for Semiconductor Lead Layouts

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

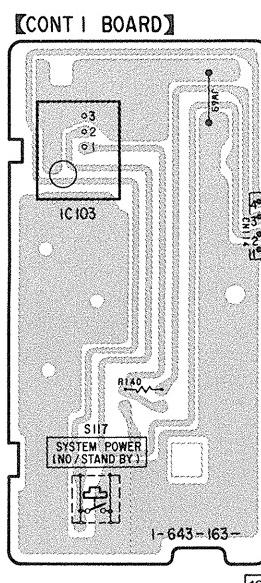
A



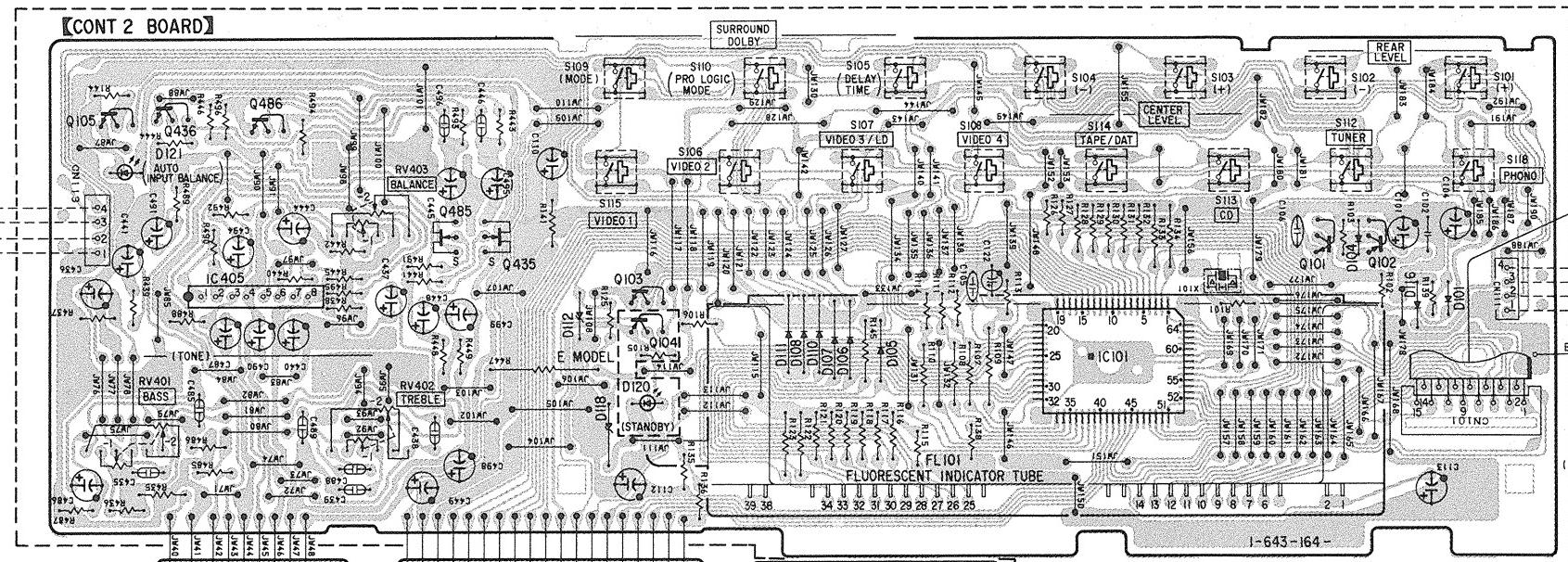
#### • SEMICONDUCTOR LOCATION (CONT 2 BOARD)

	Board suffix number	-11	-12
Ref. No.	LOCATION	LOCATION	LOCATION
D101	C-12	G-12	
D104	B-12	F-12	
D105	C-8	G-8	
D106	C-8	G-8	
D107	C-8	G-8	
D108	C-8	G-8	
D110	C-8	G-8	
D111	C-8	G-8	
D112	C-6	G-6	
D116	C-12	G-12	
D118	D-7	H-7	
D120	D-7	H-7	
D121	B-4	F-4	
IC101	C-10	G-10	
IC103	I-1	G-4	
IC405	C-4		
Q101	B-11	F-11	
Q102	B-12	F-12	
Q103	C-7	G-7	
Q104	C-7	G-7	
Q105	B-3	F-3	
Q435	B-6	F-6	
Q436	B-4	F-4	
Q485	B-6	F-6	
Q486	B-4	F-4	

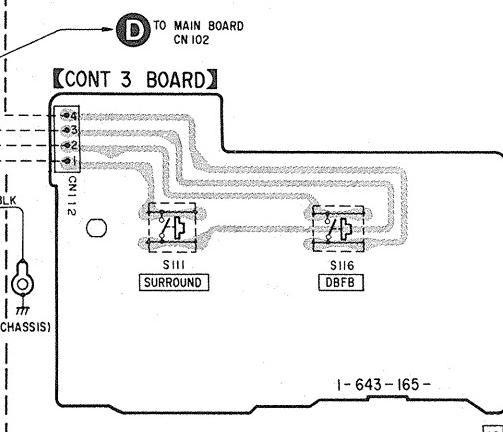
B



C



D



E

F

G

H

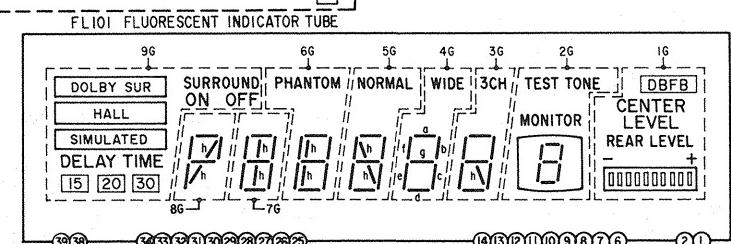
I

J

#### — CONTROL SECTION —

##### Note:

- ○ : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- ○—○ : Jumper wire connected to the ground pattern on the component side.
- ××× : Pattern on the side which is seen.



## SECTION 4

### EXPLODED VIEWS

## NOTE:

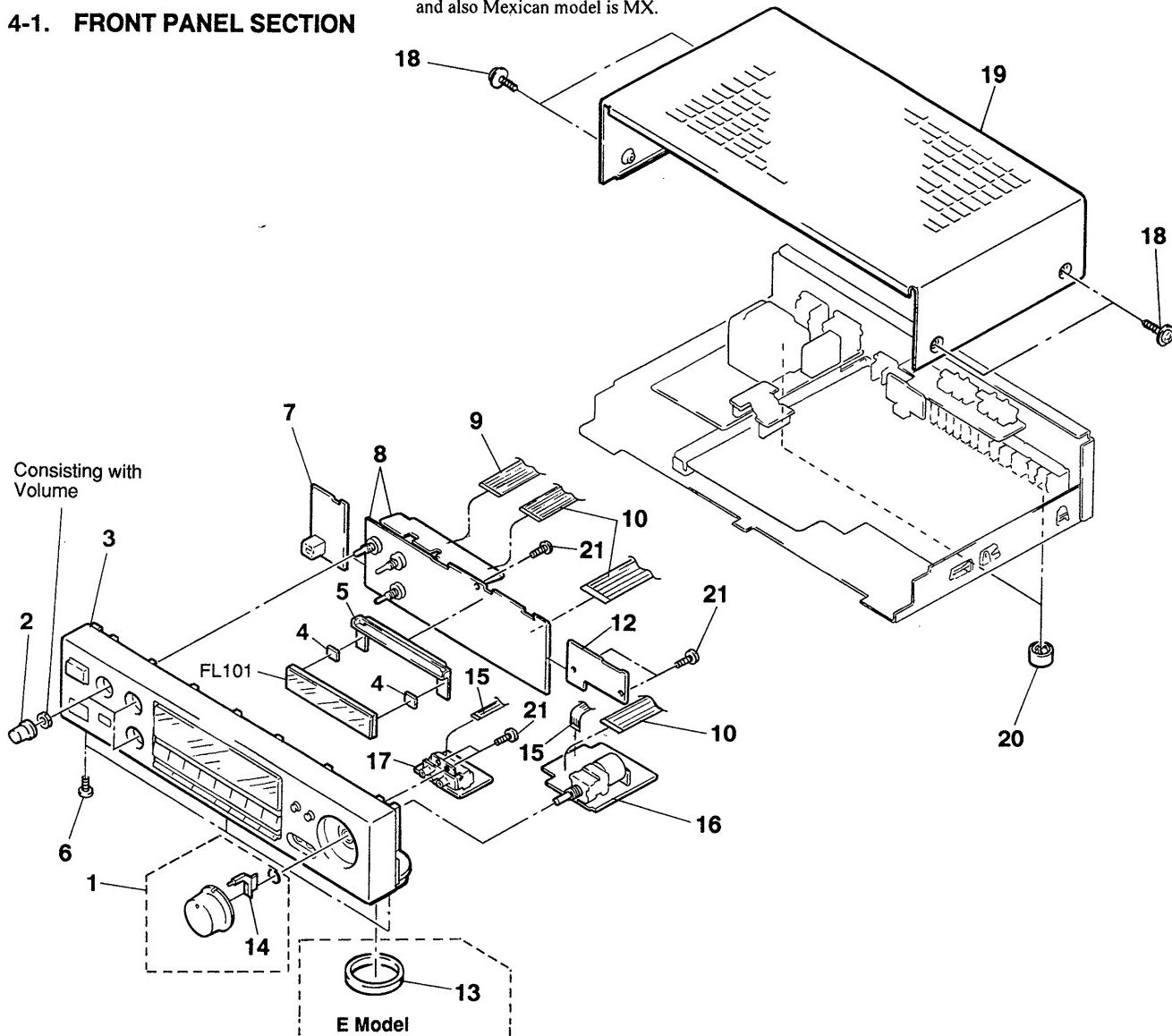
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts Example:  
KNOB, BALANCE (WHITE) . . . (RED)  
 ↑                              ↑  
 Parts color                Cabinet's color

- Items marked “ \* ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.
- Canadian model is abbreviated as CND, and also Mexican model is MX.

The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une marque  $\triangle$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

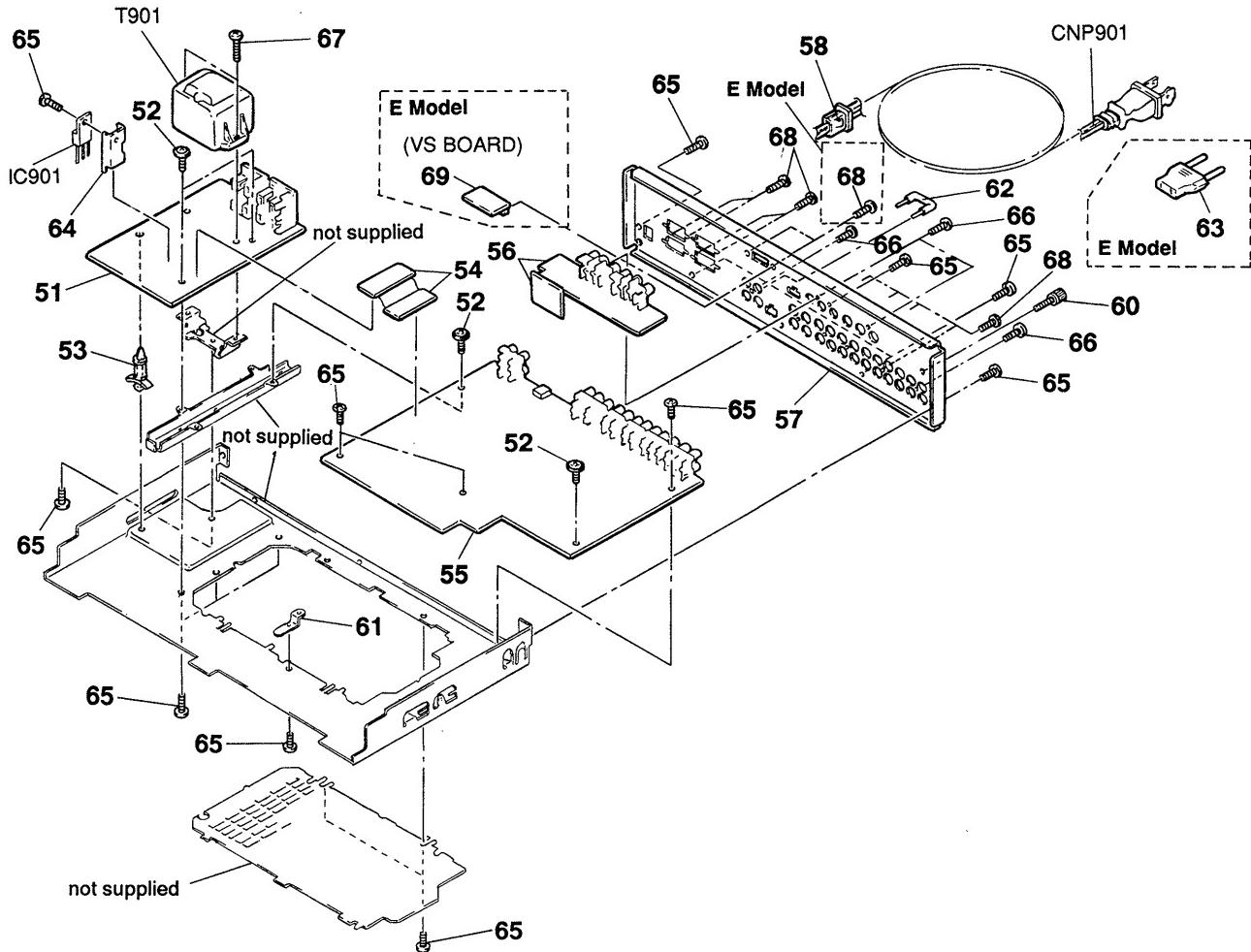
## 4-1. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	X-4942-296-1	KNOB ASSY	
2	4-943-420-11	KNOB (DIA. 19)	
3	X-4942-294-1	PANEL ASSY, FRONT (US, Canadian)	
3	X-4942-295-1	PANEL ASSY, FRONT (E)	
* 4	4-921-941-21	CUSHION (FL)	
* 5	4-934-443-01	HOLDER (FL TUBE)	
6	7-682-548-09	SCREW +BVTT 3X8 (S)	
* 7	1-643-163-11	PC BOARD, CONT 1	
* 8	A-4347-305-A	CONT 2 BOARD, COMPLETE (US, Canadian)	
* 8	A-4347-310-A	CONT 2 BOARD, COMPLETE (E)	
9	1-590-036-11	WIRE, FLAT TYPE (13 CORE)	
10	1-690-095-11	WIRE, FLAT TYPE (15 CORE)	

Ref. No.	Part No.	Description	Remark
* 12	1-643-165-11	PC BOARD, CONT 3	
* 13	4-929-030-11	RING (DIA. 58A), ORNAMENTAL (E)	
14	4-943-092-01	PLATE (VOL), LIGHT GUIDE	
15	1-575-730-11	WIRE, FLAT TYPE (5 CORE)	
* 16	1-643-166-11	PC BOARD, M-VOL	
* 17	1-643-169-11	PC BOARD, VIDEO 4	
18	3-704-366-01	SCREW (CASE) (M3X8)	
* 19	4-937-817-11	CASE	
20	4-933-601-01	FOOT	
21	4-928-635-01	SCREW, +BV (2.6X8) TAPPING	
FL101	1-519-727-11	INDICATOR TUBE, FLUORESCENT	

## 4-2. BACK PANEL SECTION



Ref. No.	Part No.	Description	Remark
* 51	A-4347-303-A	PS BOARD, COMPLETE (US, Canadian)	
* 51	A-4347-309-A	PS BOARD, COMPLETE (E)	
52	4-886-821-11	SCREW, S TIGHT, +PTTWH 3X6	
* 53	3-346-265-11	HOLDER, PC BOARD	
* 54	1-643-170-11	PC BOARD, CN	
* 55	A-4347-299-A	MAIN BOARD, COMPLETE	
* 56	A-4347-300-A	VIDEO BOARD, COMPLETE	
* 57	4-945-755-41	PANEL, BACK (US, Canadian)	
* 57	4-945-755-51	PANEL, BACK (E)	
* 58	3-703-244-00	BUSHING (2104), CORD (US, Canadian)	
* 58	3-703-571-11	BUSHING (S) (4516), CORD (E)	
60	4-947-010-01	SCREW, FEEDER FIXED	
* 61	3-332-563-01	BRACKET (P)	

Ref. No.	Part No.	Description	Remark
62	1-535-530-11	PLUG, JUMPER	
△63	1-569-007-11	ADAPTER, CONVERSION 2P (E)	
* 64	3-309-144-21	HEAT SINK	
65	7-682-548-09	SCREW +BVTT 3X8 (S)	
66	7-621-849-00	SCREW (BV/RING)	
67	7-682-550-04	SCREW +BVTT 3X12 (S)	
68	7-685-646-79	SCREW +BTP 3X8 TYPE2 N-S	
* 69	1-643-171-11	PC BOARD, VS (E)	
△CNP901	1-574-902-11	CORD, POWER (E)	
△CNP901	1-590-771-11	CORD, POWER (US, Canadian)	
IC901	8-759-604-39	IC M5F78M12	
△T901	1-450-845-11	TRANSFORMER, POWER (US, Canadian)	
△T901	1-450-846-11	TRANSFORMER, POWER (E)	

# SECTION 5

## ELECTRICAL PARTS LIST

CN

CONT 1

CONT 2

## NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms.  
METAL: Metal-film resistor.  
METAL OXIDE: Metal oxide-film resistor.  
F: nonflammable

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

## ● SEMICONDUCTORS

In each case, u:  $\mu$ , for example:  
uA .. :  $\mu$ A.    uPA .. :  $\mu$ PA.  
uPB .. :  $\mu$ PB.    uPC .. :  $\mu$ PC.    uPD .. :  $\mu$ PD..

## ● CAPACITORS

uF:  $\mu$ F

When indicating parts by reference number, please include the board.

● COILS

uH:  $\mu$ H

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
*	1-643-170-11	CN BOARD	
		*****	
		< CONNECTOR >	
* CN903	1-560-285-11	CONNECTOR, (PIN) 12P	
* CN904	1-560-285-11	CONNECTOR, (PIN) 12P	
*****			
*	1-643-163-11	CONT 1 BOARD	
		*****	
		< CONNECTOR >	
* CN114	1-565-295-11	PLUG, CONNECTOR 4P	
		< IC >	
IC103	8-749-920-83	IC GP1U52XB	
		< RESISTOR >	
R140	1-249-429-11	CARBON	10K 5% 1/4W
		< SWITCH >	
S117	1-554-303-21	SWITCH, TACTILE (SYSTEM POWER)	
*****			
*	A-4347-305-A	CONT 2 BOARD, COMPLETE (US, Canadian)	
*	A-4347-310-A	CONT 2 BOARD, COMPLETE (E)	
*****			
*	4-921-941-21	CUSHION (FL)	
*	4-934-443-01	HOLDER (FL TUBE)	
		< CAPACITOR >	
C101	1-124-465-00	ELECT	0.47uF 20% 50V
C102	1-161-494-00	CERAMIC	0.022uF 25V
C104	1-126-177-11	ELECT	100uF 20% 10V
C105	1-164-097-11	CERAMIC	0.022uF 50V
C106	1-130-487-00	MYLAR	0.022uF 5% 50V

Ref. No.	Part No.	Description	Remark
C110	1-124-589-11	ELECT	47uF 20% 16V
C112	1-124-910-11	ELECT	47uF 20% 50V
C113	1-124-910-11	ELECT	47uF 20% 50V
C122	1-126-301-11	ELECT	1uF 20% 50V
C435	1-136-159-00	FILM	0.033uF 5% 50V
C436	1-124-250-00	ELECT	0.15uF 20% 50V
C437	1-126-163-11	ELECT	4.7uF 20% 50V
C438	1-106-363-00	MYLAR	6800PF 5% 200V
C439	1-136-159-00	FILM	0.033uF 5% 50V
C440	1-126-163-11	ELECT	4.7uF 20% 50V
C441	1-126-177-11	ELECT	100uF 20% 10V
C444	1-126-163-11	ELECT	4.7uF 20% 50V
C445	1-126-301-11	ELECT	1uF 20% 50V
C446	1-130-491-00	MYLAR	0.047uF 5% 50V
C448	1-124-257-00	ELECT	2.2uF 20% 50V
C449	1-126-163-11	ELECT	4.7uF 20% 50V
C485	1-136-159-00	FILM	0.033uF 5% 50V
C486	1-124-250-00	ELECT	0.15uF 20% 50V
C487	1-126-163-11	ELECT	4.7uF 20% 50V
C488	1-106-363-00	MYLAR	6800PF 5% 200V
C489	1-136-159-00	FILM	0.033uF 5% 50V
C490	1-126-163-11	ELECT	4.7uF 20% 50V
C491	1-126-177-11	ELECT	100uF 20% 10V
C494	1-126-163-11	ELECT	4.7uF 20% 50V
C495	1-126-301-11	ELECT	1uF 20% 50V
C496	1-130-491-00	MYLAR	0.047uF 5% 50V
C498	1-126-163-11	ELECT	4.7uF 20% 50V
C499	1-124-250-00	ELECT	0.15uF 20% 50V

## &lt; CONNECTOR &gt;

- CN101 1-691-648-11 SOCKET, CONNECTOR 15P
- \* CN103 1-568-858-11 SOCKET, CONNECTOR 15P
- \* CN105 1-568-856-11 SOCKET, CONNECTOR 13P
- \* CN111 1-565-480-11 CONNECTOR, BOARD TO BOARD 4P
- \* CN113 1-565-480-11 CONNECTOR, BOARD TO BOARD 4P

CONT 2

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< DIODE >							
D101	8-719-987-63	DIODE	1N4148M	R112	1-249-425-11	CARBON	4.7K 5% 1/4W
D104	8-719-987-63	DIODE	1N4148M	R113	1-249-425-11	CARBON	4.7K 5% 1/4W
D105	8-719-987-63	DIODE	1N4148M	R114	1-249-425-11	CARBON	4.7K 5% 1/4W
D106	8-719-987-63	DIODE	1N4148M	R115	1-249-437-11	CARBON	47K 5% 1/4W
D107	8-719-987-63	DIODE	1N4148M	R116	1-249-437-11	CARBON	47K 5% 1/4W
D108	8-719-987-63	DIODE	1N4148M	R117	1-249-437-11	CARBON	47K 5% 1/4W
D110	8-719-987-63	DIODE	1N4148M	R118	1-249-437-11	CARBON	47K 5% 1/4W
D111	8-719-987-63	DIODE	1N4148M	R119	1-249-437-11	CARBON	47K 5% 1/4W
D112	8-719-914-11	DIODE	HZ4ALL	R120	1-249-437-11	CARBON	47K 5% 1/4W
D116	8-719-987-63	DIODE	1N4148M	R121	1-249-437-11	CARBON	47K 5% 1/4W
D118	8-719-014-48	DIODE	UZP-4.7B	R122	1-249-437-11	CARBON	47K 5% 1/4W
D120	8-719-301-37	LED	SEL2210S-CD (E)	R123	1-249-437-11	CARBON	47K 5% 1/4W
D121	8-719-301-49	LED	SEL2810A	R125	1-249-425-11	CARBON	4.7K 5% 1/4W
< INDICATOR TUBE >							
FL101	1-519-727-11	INDICATOR TUBE, FLUORESCENT		R126	1-249-437-11	CARBON	47K 5% 1/4W
< IC >							
IC101	8-759-062-41	IC	uPD75206GF-722-3BE	R128	1-249-437-11	CARBON	47K 5% 1/4W
IC405	8-759-634-50	IC	M5218AL	R129	1-249-437-11	CARBON	47K 5% 1/4W
< TRANSISTOR >							
Q101	8-729-900-36	TRANSISTOR	DTC124ES	R130	1-249-437-11	CARBON	47K 5% 1/4W
Q102	8-729-900-63	TRANSISTOR	DTA124ES	R131	1-249-437-11	CARBON	47K 5% 1/4W
Q103	8-729-620-05	TRANSISTOR	2SC2603-EF	R132	1-249-437-11	CARBON	47K 5% 1/4W
Q104	8-729-900-63	TRANSISTOR	DTA124ES (E)	R133	1-249-437-11	CARBON	47K 5% 1/4W
Q105	8-729-900-36	TRANSISTOR	DTC124ES	R134	1-249-437-11	CARBON	47K 5% 1/4W
Q435	8-729-224-61	TRANSISTOR	2SK246-Y	R135	1-249-405-11	CARBON	100 5% 1/4W
Q436	8-729-620-05	TRANSISTOR	2SC2603-EF	R136	1-249-405-11	CARBON	100 5% 1/4W
Q485	8-729-224-61	TRANSISTOR	2SK246-Y	R138	1-249-437-11	CARBON	47K 5% 1/4W
Q486	8-729-620-05	TRANSISTOR	2SC2603-EF	R139	1-249-437-11	CARBON	47K 5% 1/4W
< RESISTOR >							
R101	1-247-903-00	CARBON	1M 5% 1/4W	R141	1-249-405-11	CARBON	100 5% 1/4W
R102	1-249-429-11	CARBON	10K 5% 1/4W	R144	1-249-411-11	CARBON	330 5% 1/4W
R103	1-247-895-00	CARBON	470K 5% 1/4W	R145	1-249-417-11	CARBON	1K 5% 1/4W
R105	1-249-409-11	CARBON	220 5% 1/4W (E)	R156	1-249-437-11	CARBON	47K 5% 1/4W
R106	1-249-417-11	CARBON	1K 5% 1/4W	R157	1-249-437-11	CARBON	47K 5% 1/4W
R107	1-249-411-11	CARBON	330 5% 1/4W	R158	1-249-437-11	CARBON	47K 5% 1/4W
R108	1-249-411-11	CARBON	330 5% 1/4W	R159	1-249-437-11	CARBON	47K 5% 1/4W
R109	1-249-411-11	CARBON	330 5% 1/4W	R160	1-249-437-11	CARBON	47K 5% 1/4W
R110	1-249-411-11	CARBON	330 5% 1/4W	R161	1-249-437-11	CARBON	47K 5% 1/4W
R111	1-249-425-11	CARBON	4.7K 5% 1/4W	R162	1-249-429-11	CARBON	10K 5% 1/4W
< VARIOUS >							
R439	1-249-427-11	CARBON	6.8K 5% 1/4W	R440	1-249-438-11	CARBON	56K 5% 1/4W
R440	1-249-438-11	CARBON	56K 5% 1/4W	R441	1-249-441-11	CARBON	100K 5% 1/4W
R441	1-249-441-11	CARBON	100K 5% 1/4W	R442	1-249-417-11	CARBON	1K 5% 1/4W
R442	1-249-417-11	CARBON	1K 5% 1/4W	R443	1-249-418-11	CARBON	1.2K 5% 1/4W
R444	1-247-883-00	CARBON	150K 5% 1/4W	R445	1-249-412-11	CARBON	390 5% 1/4W
R445	1-249-412-11	CARBON	390 5% 1/4W	R446	1-249-427-11	CARBON	6.8K 5% 1/4W
R446	1-249-427-11	CARBON	6.8K 5% 1/4W	R447	1-249-421-11	CARBON	2.2K 5% 1/4W

**CONT 2** **CONT 3** **M-VOL** **MAIN**

Ref. No.	Part No.	Description	Remark							
R448	1-247-903-00	CARBON	1M	5%	1/4W					
R449	1-249-437-11	CARBON	47K	5%	1/4W					
R485	1-249-417-11	CARBON	1K	5%	1/4W					
R486	1-249-429-11	CARBON	10K	5%	1/4W					
R487	1-249-421-11	CARBON	2. 2K	5%	1/4W					
R488	1-249-441-11	CARBON	100K	5%	1/4W					
R489	1-249-427-11	CARBON	6. 8K	5%	1/4W					
R490	1-249-438-11	CARBON	56K	5%	1/4W					
R491	1-249-441-11	CARBON	100K	5%	1/4W					
R492	1-249-417-11	CARBON	1K	5%	1/4W					
R493	1-249-418-11	CARBON	1. 2K	5%	1/4W					
R494	1-247-883-00	CARBON	150K	5%	1/4W					
R495	1-249-412-11	CARBON	390	5%	1/4W					
R496	1-249-427-11	CARBON	6. 8K	5%	1/4W					
< VARIABLE RESISTOR >										
RV401	1-241-858-11	RES, VAR, CARBON	100K/100K	(BASS)						
RV402	1-241-858-11	RES, VAR, CARBON	100K/100K	(TREBLE)						
RV403	1-241-022-11	RES, VAR, CARBON	150K/150K	(BALANCE)						
< SWITCH >										
S101	1-554-303-21	SWITCH, TACTILE	(+ (REAR LEVEL))							
S102	1-554-303-21	SWITCH, TACTILE	(- (REAR LEVEL))							
S103	1-554-303-21	SWITCH, TACTILE	(+ (CENTER LEVEL))							
S104	1-554-303-21	SWITCH, TACTILE	(- (CENTER LEVEL))							
S105	1-554-303-21	SWITCH, TACTILE	(DELAY TIME (SURROUND DOLBY))							
S106	1-554-303-21	SWITCH, TACTILE	VIDEO 2							
S107	1-554-303-21	SWITCH, TACTILE	VIDEO 3/LD							
S108	1-554-303-21	SWITCH, TACTILE	VIDEO 4							
S109	1-554-303-21	SWITCH, TACTILE	MODE (SURROUND DOLBY)							
S110	1-554-303-21	SWITCH, TACTILE	(PRO LOGIC MODE (SURROUND DOLBY))							
S112	1-554-303-21	SWITCH, TACTILE	TUNER							
S113	1-554-303-21	SWITCH, TACTILE	CD							
S114	1-554-303-21	SWITCH, TACTILE	TAPE/DAT							
S115	1-554-303-21	SWITCH, TACTILE	VIDEO 1							
S118	1-554-303-21	SWITCH, TACTILE	PHONO							
< VIBRATOR >										
X101	1-577-101-11	VIBRATOR, CERAMIC								
*****										
*	1-643-165-11	CONT 3 BOARD								
*****										
< CONNECTOR >										
* CN112	1-565-295-11	PLUG, CONNECTOR 4P								

Ref. No.	Part No.	Description	Remark					
		< SWITCH >						
S111	1-554-303-21	SWITCH, TACTILE (SURROUND)						
S116	1-554-303-21	SWITCH, TACTILE (DBFB)						
*****								
*	1-643-166-11	M-VOL BOARD						
*****								
< CAPACITOR >								
C107	1-124-273-00	ELECT	3. 3uF	20%	50V			
C108	1-130-483-00	MYLAR	0. 01uF	5%	50V			
C109	1-130-483-00	MYLAR	0. 01uF	5%	50V			
< CONNECTOR >								
* CN107	1-568-824-11	SOCKET, CONNECTOR 5P						
* CN301	1-568-834-11	SOCKET, CONNECTOR 15P						
< DIODE >								
D130	8-719-933-41	DIODE	HZS6C3L					
< IC >								
IC102	8-759-820-62	IC	LB1639					
< TRANSISTOR >								
Q100	8-729-140-98	TRANSISTOR	2SD773-34					
< RESISTOR >								
R146	1-249-425-11	CARBON	4. 7K	5%	1/4W			
R147	1-249-425-11	CARBON	4. 7K	5%	1/4W			
R154	1-249-414-11	CARBON	560	5%	1/4W			
R155	1-249-421-11	CARBON	2. 2K	5%	1/4W			
< VARIABLE RESISTOR >								
RV301	1-241-816-11	RES, VAR, CARBON	100KX4	(VOLUME)				
*****								
*	A-4347-299-A	MAIN BOARD, COMPLETE						
*****								
*	4-942-204-01	BOARD PLATE, GROUND						
< CAPACITOR >								
C001	1-164-062-11	CERAMIC	47PF	5%	50V			
C051	1-164-062-11	CERAMIC	47PF	5%	50V			
C202	1-164-072-11	CERAMIC	120PF	5%	50V			
C203	1-124-907-11	ELECT	10uF	20%	50V			
C204	1-162-284-31	CERAMIC	150PF	10%	50V			

## MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C205	1-124-925-11	ELECT	2. 2uF	20%	100V	C340	1-136-165-00	FILM	0. 1uF	5%	50V
C206	1-130-480-00	MYLAR	0. 0056uF	5%	50V	C341	1-164-083-11	CERAMIC	680PF	10%	50V
C207	1-106-347-00	MYLAR	1500PF	5%	200V	C342	1-130-483-00	MYLAR	0. 01uF	5%	50V
C208	1-124-902-00	ELECT	0. 47uF	20%	50V	C343	1-124-907-11	ELECT	10uF	20%	50V
C209	1-161-494-00	CERAMIC	0. 022uF		25V	C344	1-124-907-11	ELECT	10uF	20%	50V
C210	1-124-477-11	ELECT	47uF	20%	25V	C345	1-124-907-11	ELECT	10uF	20%	50V
C231	1-162-294-31	CERAMIC	0. 001uF	10%	50V	C346	1-124-907-11	ELECT	10uF	20%	50V
C252	1-164-072-11	CERAMIC	120PF	5%	50V	C347	1-136-173-00	FILM	0. 47uF	5%	50V
C253	1-124-907-11	ELECT	10uF	20%	50V	C348	1-124-252-00	ELECT	0. 33uF	20%	50V
C254	1-162-284-31	CERAMIC	150PF	10%	50V	C349	1-136-165-00	FILM	0. 1uF	5%	50V
C255	1-124-925-11	ELECT	2. 2uF	20%	100V	C350	1-136-165-00	FILM	0. 1uF	5%	50V
C256	1-130-480-00	MYLAR	0. 0056uF	5%	50V	C351	1-124-907-11	ELECT	10uF	20%	50V
C257	1-106-347-00	MYLAR	1500PF	5%	200V	C352	1-164-062-11	CERAMIC	47PF	5%	50V
C258	1-124-902-00	ELECT	0. 47uF	20%	50V	C353	1-124-907-11	ELECT	10uF	20%	50V
C259	1-161-494-00	CERAMIC	0. 022uF		25V	C354	1-164-083-11	CERAMIC	680PF	10%	50V
C260	1-124-477-11	ELECT	47uF	20%	25V	C355	1-124-925-11	ELECT	2. 2uF	20%	100V
C301	1-124-907-11	ELECT	10uF	20%	50V	C356	1-124-925-11	ELECT	2. 2uF	20%	100V
C302	1-164-062-11	CERAMIC	47PF	5%	50V	C357	1-136-167-00	FILM	0. 15uF	5%	50V
C303	1-124-907-11	ELECT	10uF	20%	50V	C358	1-123-382-00	ELECT	3. 3uF	20%	100V
C308	1-130-480-00	MYLAR	0. 0056uF	5%	50V	C359	1-136-167-00	FILM	0. 15uF	5%	50V
C309	1-106-363-00	MYLAR	6800PF	5%	200V	C360	1-126-176-11	ELECT	220uF	20%	10V
C310	1-164-082-11	CERAMIC	560PF	10%	50V	C361	1-124-910-11	ELECT	47uF	20%	50V
C311	1-124-907-11	ELECT	10uF	20%	50V	C362	1-124-907-11	ELECT	10uF	20%	50V
C312	1-164-083-11	CERAMIC	680PF	10%	50V	C363	1-124-907-11	ELECT	10uF	20%	50V
C313	1-136-167-00	FILM	0. 15uF	5%	50V	C364	1-124-252-00	ELECT	0. 33uF	20%	50V
C314	1-164-075-11	CERAMIC	150PF	10%	50V	C365	1-136-165-00	FILM	0. 1uF	5%	50V
C315	1-130-487-00	MYLAR	0. 022uF	5%	50V	C366	1-136-165-00	FILM	0. 1uF	5%	50V
C316	1-162-294-31	CERAMIC	0. 001uF	10%	50V	C367	1-164-083-11	CERAMIC	680PF	10%	50V
C317	1-124-927-11	ELECT	4. 7uF	20%	100V	C368	1-124-925-11	ELECT	2. 2uF	20%	100V
C318	1-130-485-00	MYLAR	0. 015uF	5%	50V	C369	1-124-925-11	ELECT	2. 2uF	20%	100V
C319	1-124-907-11	ELECT	10uF	20%	50V	C370	1-136-167-00	FILM	0. 15uF	5%	50V
C320	1-124-907-11	ELECT	10uF	20%	50V	C371	1-123-382-00	ELECT	3. 3uF	20%	100V
C321	1-124-907-11	ELECT	10uF	20%	50V	C372	1-136-167-00	FILM	0. 15uF	5%	50V
C322	1-130-489-00	MYLAR	0. 033uF	5%	50V	C374	1-124-927-11	ELECT	4. 7uF	20%	100V
C323	1-106-359-00	MYLAR	4700PF	5%	200V	C378	1-136-169-00	FILM	0. 22uF	5%	50V
C324	1-130-477-00	MYLAR	0. 0033uF	5%	50V	C383	1-136-169-00	FILM	0. 22uF	5%	50V
C325	1-136-163-00	FILM	0. 068uF	5%	50V	C385	1-130-489-00	MYLAR	0. 033uF	5%	50V
C326	1-136-169-00	FILM	0. 22uF	5%	50V	C398	1-124-907-11	ELECT	10uF	20%	50V
C329	1-124-472-11	ELECT	470uF	20%	10V	C399	1-124-907-11	ELECT	10uF	20%	50V
C330	1-124-927-11	ELECT	4. 7uF	20%	100V	C400	1-124-907-11	ELECT	10uF	20%	50V
C331	1-162-294-31	CERAMIC	0. 001uF	10%	50V	C402	1-164-058-11	CERAMIC	33PF	5%	50V
C332	1-130-487-00	MYLAR	0. 022uF	5%	50V	C403	1-164-070-11	CERAMIC	100PF	5%	50V
C333	1-164-075-11	CERAMIC	150PF	10%	50V	C408	1-124-907-11	ELECT	10uF	20%	50V
C334	1-126-176-11	ELECT	220uF	20%	10V	C409	1-124-907-11	ELECT	10uF	20%	50V
C335	1-126-176-11	ELECT	220uF	20%	10V	C410	1-124-927-11	ELECT	4. 7uF	20%	100V
C336	1-124-120-11	ELECT	220uF	20%	25V	C411	1-124-927-11	ELECT	4. 7uF	20%	100V
C337	1-136-165-00	FILM	0. 1uF	5%	50V	C412	1-124-927-11	ELECT	4. 7uF	20%	100V
C338	1-124-443-00	ELECT	100uF	20%	10V	C413	1-124-927-11	ELECT	4. 7uF	20%	100V
C339	1-124-907-11	ELECT	10uF	20%	50V						

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C414	1-124-477-11	ELECT	47uF	20%	25V	IC309	8-759-801-01	IC	LC4966		
C416	1-124-250-00	ELECT	0.15uF	20%	50V	IC401	8-759-634-50	IC	M5218AL		
C450	1-124-907-11	ELECT	10uF	20%	50V	IC402	8-759-634-50	IC	M5218AL		
C452	1-164-058-11	CERAMIC	33PF	5%	50V	IC403	8-759-634-51	IC	M5218AP		
C453	1-164-070-11	CERAMIC	100PF	5%	50V	IC404	8-759-820-11	IC	LC7535		
C458	1-124-907-11	ELECT	10uF	20%	50V	< COIL >					
C459	1-124-907-11	ELECT	10uF	20%	50V	L301	1-410-521-11	INDUCTOR	100uH		
C460	1-124-927-11	ELECT	4.7uF	20%	100V	< JACK >					
C461	1-124-927-11	ELECT	4.7uF	20%	100V	PJ200	1-565-320-61	JACK, PIN 6P	(PHONO/TUNER/CD)		
C462	1-124-927-11	ELECT	4.7uF	20%	100V	PJ201	1-565-320-61	JACK, PIN 6P	(TAPE/DAT/VIDEO 3/LD)		
C463	1-124-927-11	ELECT	4.7uF	20%	100V	PJ202	1-565-258-11	JACK, PIN 4P	(VIDEO 2)		
C464	1-124-250-00	ELECT	0.15uF	20%	50V	PJ203	1-565-258-11	JACK, PIN 4P	(VIDEO 1)		
C465	1-124-250-00	ELECT	0.15uF	20%	50V	PJ204	1-563-562-11	JACK, PIN 4P	(ADAPTOR)		
C1001	1-164-097-11	CERAMIC	0.022uF		50V	PJ401	1-565-258-11	JACK, PIN 4P	(OUTPUT)		
C1002	1-164-097-11	CERAMIC	0.022uF		50V	< TRANSISTOR >					
C1003	1-164-093-11	CERAMIC	0.0047uF	10%	25V	Q106	8-729-900-36	TRANSISTOR	DTC124ES		
C1004	1-164-093-11	CERAMIC	0.0047uF	10%	25V	Q107	8-729-900-36	TRANSISTOR	DTC124ES		
C1005	1-164-097-11	CERAMIC	0.022uF		50V	Q108	8-729-900-36	TRANSISTOR	DTC124ES		
C1006	1-124-903-11	ELECT	1uF	20%	50V	Q301	8-729-900-36	TRANSISTOR	DTC124ES		
C1007	1-124-903-11	ELECT	1uF	20%	50V	Q302	8-729-900-63	TRANSISTOR	DTA124ES		
C1008	1-162-286-31	CERAMIC	220PF	10%	50V	Q303	8-729-900-36	TRANSISTOR	DTC124ES		
C1009	1-162-286-31	CERAMIC	220PF	10%	50V	Q304	8-729-141-30	TRANSISTOR	2SC3623A-LK		
< CONNECTOR >											
* CN102	1-568-834-11	SOCKET, CONNECTOR 15P	Q305	8-729-209-15	TRANSISTOR	2SD2012					
* CN104	1-568-834-11	SOCKET, CONNECTOR 15P	Q331	8-729-900-36	TRANSISTOR	DTC124ES					
* CN106	1-568-832-11	SOCKET, CONNECTOR 13P	Q332	8-729-900-36	TRANSISTOR	DTC124ES					
* CN108	1-568-824-11	SOCKET, CONNECTOR 5P	Q333	8-729-900-63	TRANSISTOR	DTA124ES					
CN110	1-566-211-11	PIN, CONNECTOR 4P(POWER AMP CONTROL OUT)	Q403	8-729-141-26	TRANSISTOR	2SC3622A-LK					
* CN302	1-568-834-11	SOCKET, CONNECTOR 15P	Q404	8-729-141-26	TRANSISTOR	2SC3622A-LK					
* CN304	1-568-824-11	SOCKET, CONNECTOR 5P	Q406	8-729-141-26	TRANSISTOR	2SC3622A-LK					
* CN502	1-562-358-00	CONNECTOR (SOCKET) 6P	Q408	8-729-900-63	TRANSISTOR	DTA124ES					
CN902	1-573-147-11	HOUSING, CONNECTOR 12P	Q409	8-729-900-63	TRANSISTOR	DTA124ES					
< DIODE >											
D399	8-719-987-63	DIODE	1N4148M	Q410	8-729-900-63	TRANSISTOR	DTA124ES				
< IC >											
IC106	8-759-805-14	IC	LC7822	Q453	8-729-141-26	TRANSISTOR	2SC3622A-LK				
IC200	8-759-634-51	IC	M5218AP	< RESISTOR >							
IC204	8-759-801-01	IC	LC4966	R142	1-249-405-11	CARBON	100	5%	1/4W		
IC254	8-759-801-01	IC	LC4966	R143	1-249-405-11	CARBON	100	5%	1/4W		
IC301	8-759-634-50	IC	M5218AL	R144	1-249-405-11	CARBON	100	5%	1/4W		
IC302	8-759-801-01	IC	LC4966	R202	1-249-411-11	CARBON	330	5%	1/4W		
IC303	8-759-823-63	IC	LV1001M	R203	1-249-437-11	CARBON	47K	5%	1/4W		
IC304	8-759-821-13	IC	LM3364K-15	IC307	8-759-634-50	IC	M5218AL	820	5%	1/4W	
IC305	8-759-047-15	IC	LA2780	R204	1-249-416-11	CARBON	560K	5%	1/4W		
IC307	8-759-634-50	IC	M5218AL	R205	1-247-897-11	CARBON	47K	5%	1/4W		
				R206	1-249-437-11	CARBON	100K	5%	1/4W		
				R207	1-249-441-11	CARBON	220	5%	1/4W		
				R208	1-249-409-11	CARBON					

## MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R209	1-249-417-11	CARBON	1K 5% 1/4W	R320	1-249-429-11	CARBON	10K 5% 1/4W
R210	1-249-426-11	CARBON	5.6K 5% 1/4W	R321	1-249-429-11	CARBON	10K 5% 1/4W
R211	1-249-417-11	CARBON	1K 5% 1/4W	R325	1-249-433-11	CARBON	22K 5% 1/4W
R212	1-249-417-11	CARBON	1K 5% 1/4W	R326	1-249-433-11	CARBON	22K 5% 1/4W
R213	1-249-426-11	CARBON	5.6K 5% 1/4W	R333	1-249-433-11	CARBON	22K 5% 1/4W
R214	1-249-417-11	CARBON	1K 5% 1/4W	R342	1-249-427-11	CARBON	6.8K 5% 1/4W
R215	1-249-417-11	CARBON	1K 5% 1/4W	R343	1-249-427-11	CARBON	6.8K 5% 1/4W
R216	1-249-417-11	CARBON	1K 5% 1/4W	R345	1-249-433-11	CARBON	22K 5% 1/4W
R217	1-249-417-11	CARBON	1K 5% 1/4W	R349	1-249-423-11	CARBON	3.3K 5% 1/4W
R218	1-249-405-11	CARBON	100 5% 1/4W	R350	1-247-887-00	CARBON	220K 5% 1/4W
R219	1-249-405-11	CARBON	100 5% 1/4W	R351	1-247-887-00	CARBON	220K 5% 1/4W
R220	1-249-433-11	CARBON	22K 5% 1/4W	R352	1-247-887-00	CARBON	220K 5% 1/4W
R221	1-249-433-11	CARBON	22K 5% 1/4W	R353	1-249-405-11	CARBON	100 5% 1/4W
R224	1-249-429-11	CARBON	10K 5% 1/4W	R355	1-249-429-11	CARBON	10K 5% 1/4W
R252	1-249-411-11	CARBON	330 5% 1/4W	R356	1-249-429-11	CARBON	10K 5% 1/4W
R253	1-249-437-11	CARBON	47K 5% 1/4W	R357	1-249-433-11	CARBON	22K 5% 1/4W
R254	1-249-416-11	CARBON	820 5% 1/4W	R358	1-247-887-00	CARBON	220K 5% 1/4W
R255	1-247-897-11	CARBON	560K 5% 1/4W	R359	1-247-887-00	CARBON	220K 5% 1/4W
R256	1-249-437-11	CARBON	47K 5% 1/4W	R360	1-247-887-00	CARBON	220K 5% 1/4W
R257	1-249-441-11	CARBON	100K 5% 1/4W	R361	1-247-887-00	CARBON	220K 5% 1/4W
R258	1-249-409-11	CARBON	220 5% 1/4W	R362	1-249-433-11	CARBON	22K 5% 1/4W
R259	1-249-417-11	CARBON	1K 5% 1/4W	R363	1-249-421-11	CARBON	2.2K 5% 1/4W
R260	1-249-426-11	CARBON	5.6K 5% 1/4W	R364	1-247-852-11	CARBON	7.5K 5% 1/4W
R261	1-249-417-11	CARBON	1K 5% 1/4W	R365	1-249-431-11	CARBON	15K 5% 1/4W
R262	1-249-417-11	CARBON	1K 5% 1/4W	R366	1-249-437-11	CARBON	47K 5% 1/4W
R263	1-249-426-11	CARBON	5.6K 5% 1/4W	R367	1-249-429-11	CARBON	10K 5% 1/4W
R264	1-249-417-11	CARBON	1K 5% 1/4W	R368	1-249-421-11	CARBON	2.2K 5% 1/4W
R265	1-249-417-11	CARBON	1K 5% 1/4W	R369	1-249-437-11	CARBON	47K 5% 1/4W
R266	1-249-417-11	CARBON	1K 5% 1/4W	R370	1-249-425-11	CARBON	4.7K 5% 1/4W
R267	1-249-417-11	CARBON	1K 5% 1/4W	R371	1-249-430-11	CARBON	12K 5% 1/4W
R268	1-249-405-11	CARBON	100 5% 1/4W	R373	1-247-887-00	CARBON	220K 5% 1/4W
R269	1-249-405-11	CARBON	100 5% 1/4W	R374	1-247-887-00	CARBON	220K 5% 1/4W
R270	1-249-433-11	CARBON	22K 5% 1/4W	R376	1-247-887-00	CARBON	220K 5% 1/4W
R271	1-249-433-11	CARBON	22K 5% 1/4W	R377	1-247-887-00	CARBON	220K 5% 1/4W
R300	1-247-887-00	CARBON	220K 5% 1/4W	R378	1-249-429-11	CARBON	10K 5% 1/4W
R301	1-247-887-00	CARBON	220K 5% 1/4W	R380	1-249-421-11	CARBON	2.2K 5% 1/4W
R302	1-247-887-00	CARBON	220K 5% 1/4W	R381	1-247-852-11	CARBON	7.5K 5% 1/4W
R303	1-249-405-11	CARBON	100 5% 1/4W	R382	1-249-431-11	CARBON	15K 5% 1/4W
R309	1-249-428-11	CARBON	8.2K 5% 1/4W	R385	1-249-413-11	CARBON	470 5% 1/4W
R310	1-249-428-11	CARBON	8.2K 5% 1/4W	R398	1-249-429-11	CARBON	10K 5% 1/4W
R311	1-249-431-11	CARBON	15K 5% 1/4W	R399	1-249-417-11	CARBON	1K 5% 1/4W
R312	1-249-428-11	CARBON	8.2K 5% 1/4W	R401	1-247-887-00	CARBON	220K 5% 1/4W
R313	1-249-436-11	CARBON	39K 5% 1/4W	R402	1-249-429-11	CARBON	10K 5% 1/4W
R314	1-249-423-11	CARBON	3.3K 5% 1/4W	R410	1-249-421-11	CARBON	2.2K 5% 1/4W
R315	1-249-437-11	CARBON	47K 5% 1/4W	R414	1-249-429-11	CARBON	10K 5% 1/4W
R316	1-247-903-00	CARBON	1M 5% 1/4W	R415	1-249-423-11	CARBON	3.3K 5% 1/4W
R317	1-249-429-11	CARBON	10K 5% 1/4W	R416	1-249-436-11	CARBON	39K 5% 1/4W
R318	1-247-887-00	CARBON	220K 5% 1/4W	R417	1-249-416-11	CARBON	820 5% 1/4W
R319	1-249-429-11	CARBON	10K 5% 1/4W				

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R418	1-249-417-11	CARBON	1K	5%	1/4W	C908	1-124-907-11	ELECT	10uF	20%	50V
R420	1-249-417-11	CARBON	1K	5%	1/4W	C909	1-124-907-11	ELECT	10uF	20%	50V
R421	1-249-417-11	CARBON	1K	5%	1/4W	C910	1-124-907-11	ELECT	10uF	20%	50V
R423	1-249-417-11	CARBON	1K	5%	1/4W	C911	1-124-477-11	ELECT	47uF	20%	25V
R424	1-249-417-11	CARBON	1K	5%	1/4W	C912	1-130-487-00	MYLAR	0.022uF	5%	50V
R425	1-249-441-11	CARBON	100K	5%	1/4W	C913	1-130-487-00	MYLAR	0.022uF	5%	50V
R427	1-247-887-00	CARBON	220K	5%	1/4W	C914	1-130-487-00	MYLAR	0.022uF	5%	50V
R428	1-249-429-11	CARBON	10K	5%	1/4W	C915	1-130-487-00	MYLAR	0.022uF	5%	50V
R429	1-249-439-11	CARBON	68K	5%	1/4W	C916	1-126-936-11	ELECT	3300uF	20%	16V
R430	1-249-429-11	CARBON	10K	5%	1/4W	C917	1-124-477-11	ELECT	47uF	20%	25V
R431	1-249-441-11	CARBON	100K	5%	1/4W	C918	1-124-477-11	ELECT	47uF	20%	25V
R432	1-249-417-11	CARBON	1K	5%	1/4W	C919	1-124-903-11	ELECT	1uF	20%	50V
R440	1-249-437-11	CARBON	47K	5%	1/4W	C920	1-130-487-00	MYLAR	0.022uF	5%	50V
R442	1-249-437-11	CARBON	47K	5%	1/4W	C921	1-124-464-11	ELECT	0.22uF	20%	50V
R447	1-249-437-11	CARBON	47K	5%	1/4W	△C922	1-161-744-00	CERAMIC	0.01uF	400V	
R451	1-247-887-00	CARBON	220K	5%	1/4W	C923	1-162-282-31	CERAMIC	100PF	10%	50V
R452	1-249-429-11	CARBON	10K	5%	1/4W	C927	1-124-907-11	ELECT	10uF	20%	50V
R460	1-249-421-11	CARBON	2.2K	5%	1/4W	C928	1-124-907-11	ELECT	10uF	20%	50V
R464	1-249-429-11	CARBON	10K	5%	1/4W	< CONNECTOR >					
R465	1-249-423-11	CARBON	3.3K	5%	1/4W	CN901 1-573-147-11 HOUSING, CONNECTOR 12P					
R466	1-249-436-11	CARBON	39K	5%	1/4W	< OUTLET >					
R467	1-249-416-11	CARBON	820	5%	1/4W	△CNJ901 1-540-059-11 OUTLET, AC (POLAR) (US, Canadian)					
R468	1-249-417-11	CARBON	1K	5%	1/4W	△CNJ901 1-540-040-11 OUTLET, AC (NONPOLAR) (2P) (E)					
R477	1-247-887-00	CARBON	220K	5%	1/4W	△CNJ902 1-540-059-11 OUTLET, AC (POLAR) (US, Canadian)					
R478	1-249-429-11	CARBON	10K	5%	1/4W	△CNJ902 1-540-040-11 OUTLET, AC (NONPOLAR) (2P) (E)					
R479	1-249-439-11	CARBON	68K	5%	1/4W	< CORD >					
R480	1-249-429-11	CARBON	10K	5%	1/4W	△CNP901 1-574-902-11 CORD, POWER (E)					
R1001	1-249-417-11	CARBON	1K	5%	1/4W	△CNP901 1-590-771-11 CORD, POWER (US, Canadian)					
< VIBRATOR >						< CONNECTOR >					
X301	1-579-125-11	VIBRATOR, CERAMIC							* CNP902 1-573-565-11 PIN, CONNECTOR 5P (E)		
*****											
* A-4347-303-A	PS BOARD, COMPLETE	(US, Canadian)	< DIODE >								
* A-4347-309-A	PS BOARD, COMPLETE	(E)	D901 8-719-200-82 DIODE 11ES2								
*****											
* 3-309-144-21	HEAT SINK	D902 8-719-200-82 DIODE 11ES2									
< CAPACITOR >						D903 8-719-015-84 DIODE UZP-22BC					
C901	1-126-104-11	ELECT	470uF	20%	35V	D904 8-719-200-82 DIODE 11ES2					
C902	1-124-913-11	ELECT	470uF	20%	50V	D905 8-719-200-82 DIODE 11ES2					
C903	1-130-487-00	MYLAR	0.022uF	5%	50V	D906 8-719-200-82 DIODE 11ES2					
C904	1-124-557-11	ELECT	1000uF	20%	25V	D907 8-719-200-82 DIODE 11ES2					
C905	1-124-480-11	ELECT	470uF	20%	25V	D910 8-719-933-41 DIODE HZS6C3L					
C906	1-124-903-11	ELECT	1uF	20%	50V	D911 8-719-200-82 DIODE 11ES2					
C907	1-124-903-11	ELECT	1uF	20%	50V	D912 8-719-200-82 DIODE 11ES2					
D913 8-719-200-82 DIODE 11ES2						D914 8-719-987-63 DIODE 1N4148M					

The components identified by mark ▲ or dotted line with mark ▲ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## PS VIDEO

Ref. No.	Part No.	Description	Remark
D915	8-719-987-63	DIODE 1N4148M	
D916	8-719-933-41	DIODE HZS6C3L	
D917	8-719-933-41	DIODE HZS6C3L	
D918	8-719-914-11	DIODE HZ4ALL	
D919	8-719-987-63	DIODE 1N4148M	
D930	8-719-987-63	DIODE 1N4148M	
D961	8-719-200-82	DIODE 11ES2	

&lt; IC &gt;

IC901	8-759-604-39	IC M5F78M12
IC902	8-759-604-45	IC M5F79M12

&lt; TRANSISTOR &gt;

Q902	8-729-900-63	TRANSISTOR DTA124ES
Q903	8-729-620-05	TRANSISTOR 2SC2603-EF
Q905	8-729-209-15	TRANSISTOR 2SD2012
Q906	8-729-141-83	TRANSISTOR 2SB1094-LK
Q907	8-729-209-15	TRANSISTOR 2SD2012
Q908	8-729-900-63	TRANSISTOR DTA124ES
Q909	8-729-801-93	TRANSISTOR 2SD1387
Q910	8-729-801-93	TRANSISTOR 2SD1387
Q911	8-729-209-15	TRANSISTOR 2SD2012
Q912	8-729-620-05	TRANSISTOR 2SC2603-EF

Q913	8-729-620-05	TRANSISTOR 2SC2603-EF
Q914	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q915	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q916	8-729-620-05	TRANSISTOR 2SC2603-EF
Q930	8-729-900-36	TRANSISTOR DTC124ES

&lt; RESISTOR &gt;

R900	1-247-842-11	CARBON 3K 5% 1/4W
△R903	1-215-888-00	METAL OXIDE 220 5% 2W F
R905	1-249-425-11	CARBON 4.7K 5% 1/4W
△R907	1-216-454-11	METAL OXIDE 390 5% 2W F
R908	1-249-405-11	CARBON 100 5% 1/4W

R909	1-249-423-11	CARBON 3.3K 5% 1/4W
R910	1-249-405-11	CARBON 100 5% 1/4W
R911	1-249-429-11	CARBON 10K 5% 1/4W
R912	1-249-437-11	CARBON 47K 5% 1/4W
R913	1-249-437-11	CARBON 47K 5% 1/4W

R915	1-249-417-11	CARBON 1K 5% 1/4W
R916	1-249-437-11	CARBON 47K 5% 1/4W
R917	1-249-433-11	CARBON 22K 5% 1/4W
R918	1-249-429-11	CARBON 10K 5% 1/4W
R919	1-249-429-11	CARBON 10K 5% 1/4W

R920	1-249-417-11	CARBON 1K 5% 1/4W
R921	1-249-429-11	CARBON 10K 5% 1/4W
R922	1-249-426-11	CARBON 5.6K 5% 1/4W
R923	1-249-426-11	CARBON 5.6K 5% 1/4W

Ref. No.	Part No.	Description	Remark
R924	1-249-425-11	CARBON 4.7K 5% 1/4W	
R925	1-249-381-11	CARBON 1 5% 1/4W	
R926	1-249-381-11	CARBON 1 5% 1/4W	
R930	1-249-421-11	CARBON 2.2K 5% 1/4W	
△R931	1-217-483-00	FUSIBLE 15 5% 1W F	
R932	1-249-417-11	CARBON 1K 5% 1/4W	

&lt; RELAY &gt;

△RY901	1-515-701-11	RELAY (US, Canadian)
△RY901	1-515-617-11	RELAY (E)

&lt; TRANSFORMER &gt;

△T901	1-450-845-11	TRANSFORMER, POWER (US, Canadian)
△T901	1-450-846-11	TRANSFORMER, POWER (E)

&lt; CONNECTOR &gt;

* VA901	1-564-321-00	PIN, CONNECTOR 2P
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&lt; CAPACITOR &gt;

C500	1-124-927-11	ELECT 4.7uF 20% 100V
C501	1-124-927-11	ELECT 4.7uF 20% 100V
C502	1-124-927-11	ELECT 4.7uF 20% 100V
C503	1-124-471-00	ELECT 1000uF 20% 6.3V
C504	1-124-471-00	ELECT 1000uF 20% 6.3V

C505	1-124-471-00	ELECT 1000uF 20% 6.3V
C507	1-161-494-00	CERAMIC 0.022uF 25V
C508	1-124-927-11	ELECT 4.7uF 20% 100V
C509	1-124-477-11	ELECT 47uF 20% 25V

&lt; CONNECTOR &gt;

* CN501	1-569-798-11	PLUG, CONNECTOR 6P
* CN503	1-564-336-00	PIN, CONNECTOR 2P
CN510	1-566-213-11	PIN, CONNECTOR 4P (CONTROL S OUT)

&lt; DIODE &gt;

D803	8-719-987-63	DIODE 1N4148M
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&lt; IC &gt;

IC500	8-759-991-77	IC BA7625
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&lt; COIL &gt;

L500	1-410-977-11	INDUCTOR 100uH
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VIDEO

VIDEO 4

VS

Ref. No.	Part No.	Description	Remark
< JACK >			

PJ500 1-565-351-61 JACK, PIN 3P (VIDEO 2/VIDEO 3/LD)  
PJ501 1-565-351-61 JACK, PIN 3P (VIDEO 1/MONITOR)

## &lt; TRANSISTOR &gt;

Q500 8-729-141-03 TRANSISTOR 2SA733-QP  
Q501 8-729-141-03 TRANSISTOR 2SA733-QP  
Q502 8-729-141-03 TRANSISTOR 2SA733-QP  
Q803 8-729-620-05 TRANSISTOR 2SC2603-EF

## &lt; RESISTOR &gt;

R500	1-247-804-11	CARBON	75	5%	1/4W
R501	1-247-804-11	CARBON	75	5%	1/4W
R502	1-247-804-11	CARBON	75	5%	1/4W
R503	1-249-403-11	CARBON	68	5%	1/4W
R504	1-249-429-11	CARBON	10K	5%	1/4W
R505	1-249-403-11	CARBON	68	5%	1/4W
R506	1-249-429-11	CARBON	10K	5%	1/4W
R507	1-249-403-11	CARBON	68	5%	1/4W
R508	1-249-429-11	CARBON	10K	5%	1/4W
R509	1-249-405-11	CARBON	100	5%	1/4W
R510	1-249-405-11	CARBON	100	5%	1/4W
R511	1-249-405-11	CARBON	100	5%	1/4W
R512	1-249-405-11	CARBON	100	5%	1/4W
R513	1-249-405-11	CARBON	100	5%	1/4W
R514	1-249-405-11	CARBON	100	5%	1/4W
R801	1-249-429-11	CARBON	10K	5%	1/4W
R807	1-249-417-11	CARBON	1K	5%	1/4W
R808	1-249-393-11	CARBON	10	5%	1/4W

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\* 1-643-169-11 VIDEO 4 BOARD

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## &lt; CAPACITOR &gt;

C220 1-124-907-11 ELECT 10uF 20% 50V

## &lt; CONNECTOR &gt;

\* CN303 1-568-824-11 SOCKET, CONNECTOR 5P

## &lt; JACK &gt;

PJ502 1-580-174-31 JACK, PIN (3P FRONT) (VIDEO 4 INPUT)

## &lt; RESISTOR &gt;

R226	1-249-418-11	CARBON	1.2K	5%	1/4W
R276	1-249-418-11	CARBON	1.2K	5%	1/4W
R517	1-247-804-11	CARBON	75	5%	1/4W

Ref. No.	Part No.	Description	Remark
< CONNECTOR >			

\* CNP903 1-573-565-11 PIN, CONNECTOR 5P (E)

## &lt; SWITCH &gt;

△S901 1-572-009-11 SELECTOR, VOLTAGE (E)

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## MISCELLANEOUS

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9 1-590-036-11 WIRE, FLAT TYPE (13 CORE)  
10 1-690-095-11 WIRE, FLAT TYPE (15 CORE)  
15 1-575-730-11 WIRE, FLAT TYPE (5 CORE)  
62 1-535-530-11 PLUG, JUMPER

△63 1-569-007-11 ADAPTER, CONVERSION 2P (E)

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## ACCESSORIES &amp; PACKING MATERIALS

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1-465-712-11 COMMANDER, STANDARD (RM-P312) (US, E)  
1-558-232-21 CORD (WITH CONNECTOR) (SIRCS) 4P (US, E)  
1-559-533-11 CORD, CONNECTION (US, E)

3-754-931-11 MANUAL, INSTRUCTION (ENGLISH/FRENCH) (E)  
3-754-931-21 MANUAL, INSTRUCTION (ENGLISH) (US)

4-925-079-01 COVER (6), BATTERY (US, E)

\* 4-931-988-41 INDIVIDUAL CARTON (US, E)

\* 4-944-501-01 CUSHION

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